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ABSTRACT

As a result of the Vocational Education Amendments of 1968, many changes have occurred in the public schools. The primary purpose of this volume is to document these changes. Five reports from the National Advisory Council extend from July 15, 1969 to June 21, 1971. Excerpts from the state advisory councils' 1970 annual reports are included for all 50 states and the District of Columbia, along with a statement from each state director of vocational education. (GEB)

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[COMMITTEE PRINT]

REPORTS ON THE IMPLEMENTATION OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

GENERAL SUBCOMMITTEE ON EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR

HOUSE OF REPRESENTATIVES

NOVEMBER 1971

Printed for the use of the Committee on Education and Labor
CARL D. PERKINS, *Chairman*

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FOREWORD

Three years ago Congress unanimously passed Public Law 90-576, the Vocational Education Amendments of 1968. That law called for fundamental reforms in our educational system in order to provide an opportunity for every American youngster to receive job training through our schools.

During these last 3 years momentous changes have occurred and opportunities have been provided which never would have been possible for many youngsters prior to 1968. The primary purpose of this volume is to document these changes.

This volume is part of the continuing oversight activities being conducted by the General Subcommittee on Education on the Nation's educational programs. It contains reports from every one of the 50 States and the District of Columbia outlining the implementation of the Vocational Education Amendments of 1968 within each State and the District of Columbia. These reports from the State directors of vocational education and the State advisory councils on vocational education have been carefully examined by the subcommittee. They demonstrate that tremendous progress has been achieved, and yet they also clearly indicate the distance which we have yet to cover in order to attain our goal, namely, assuring that every American youngster graduates with a marketable skill and is properly propared to face the world of work.

This volume also contains the five reports of the National Advisory Council on Vocational Education. Since the subcommittee is very impressed with the leadership which the National Council has provided in vocational education, we would only encourage the Council to continue its fine work.

The subcommittee wants to extend its sincere thanks to the State directors of vocational education who have provided statements especially for this volume. These statements demonstrate the great degree of dedication which is present among these public spirited officials.

It is my hope that this compendium of State and national reports on the progress of vocational education will not only serve as documentation on the implementation of the Amendments but als as a "clearing house" for an effective exchange of ideas and programs. By making available to the Nation's State superintendents and all others interested in education the panorama of vocational education, it is my hope all programs will benefit.

Roman C. Pucinski

Chairman, General Subcommittee on Education.

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PART A

NATIONAL ADVISORY COUNCIL REPORTS

ANNUAL REPORT—NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

VOCATIONAL EDUCATION AMENDMENTS OF 1968, PUBLIC LAW 90-576

JULY 15, 1969

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
OFFICE OF EDUCATION,
Washington, D.C., July 15, 1969.

Hon. ROBERT H. FINCH,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: The National Advisory Council on Vocational Education is required by law to "make annual reports of its findings and recommendations . . . to the Secretary for transmittal to the Congress."

We transmit with this letter, as our first such report, a brief statement outlining the major steps which in our view must be taken at once if vocational education is to make the substantial contributions of which it is capable toward eliminating unemployment, unrest, and violence in our country.

Because we have only recently organized, this report does not reflect the more detailed appraisal of the administration and operation of vocational programs which we contemplate in the future. We expect to submit additional findings and recommendations during the coming year. The Council believes, however, that its principal findings and recommendations are so clear and so urgent that to delay their transmission to you and to the Congress would be unwise.

Sincerely yours,

HUGH CALKINS, *Chairman.*

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

The violence that wracks our cities has its roots in unemployment and equal opportunity. Those who have no jobs in an affluent community lash out in anger and frustration. Young men and women who cannot qualify for decent jobs distrust the society which reared them. Dissidents speak with the voice of rebellion; campus and inner-city revolt reaches into our schools. Our Nation seethes.

Racial unrest, violence and the unemployment of youth have their roots in inadequate education. Each year the ranks of the school dropouts increase by three-quarters of a million young men and women. They enter the job market without the skills and attitudes employers require. They and the millions of others who are underemployed—among these the students who are graduates of our high schools but who are inadequately prepared for anything—are tragic evidence of the present inadequacy of our educational system.

The failure of our schools to educate to the level of adequate employability nearly 25% of the young men and women who turn 18 each year is a waste of money, as well as of human resources. The Nation supports a galaxy of remedial programs, some of which have cost as much as $12,000 for every man or woman placed on a job. Those who remain unemployed may cost us $4000 or more per year in welfare support for themselves and their children, who will repeat the dreary, costly cycle.

The costs, the blighted lives, the discontent, the violence, and the threat of revolution, are needless. Schools can prepare young people to realize their potential. Each city in the country succeeds every year with some of its students, in even the most depressed parts of the city. Why is success not universal? Why is the failure rate so high?

The reasons are attitude, program and money.

ATTITUDE

At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children. This attitude is shared by businessmen, labor leaders, administrators, teachers, parents, students. We are all guilty. We have promoted the idea that the only good education is an education capped by four years of college. This idea, transmitted by our values, our aspirations and our silent support, is snobbish, undemocratic, and a revelation of why schools fail so many students.

The attitude infects the Federal government, which invests $14 in the Nation's universities for every $1 it invests in the Nation's vocational education programs. It infects State governments, which invest far more in universities and colleges than they do for support for skill training for those whose initial preparation for the world of work precedes high school graduation. It infects school districts, which concentrate on college prepartory and general programs in reckless disregard of the fact that for 60 percent of our young people in high school it is still the only transition to the world of work. It infects

students, who make inappropriate choices because they are victims of the national yearning for educational prestige.

The attitude must change. The number of jobs which the unskilled can fill is declining rapidly. The number requiring a liberal arts college education, while growing, is increasing far less rapidly than the number demanding a technical skill. In the 1980s it will still be true that fewer than 20 percent of our job opportunities will require a four-year college degree. In America every child must be educated to his highest potential, and the height of the potential is not measured by the color of the collar. Plumbers, carpenters and electricians make more than many school superintendents and college presidents; only the arrogant will allow themselves to feel that one is more worthy than the other.

We recommend that the Federal Government immediately exercise its leadership and allocate more of its funds to cure our country of our national sin of intellectual snobbery.

PROGRAM

Within high schools the student should have multiple choices. A separate vocational school or a distinct vocational track should be exceptions, not rules, in a technical and changing society. Communication and computation skills become relevant in a context that relates them to an employment objective. All students must be allowed to move into and out of vocational-technical programs and to select mixtures of vocational-technical and academic courses. Students should be released from school to acquire employment experience, and should then be taken back for further education. Students should be able to go to school the year around. It is inconceivable that we plan to continue to let our school plant lie idle three months of the year. Rural schools must give their students opportunities to train for urban jobs, since many of them are bound for the city.

Those who do not acquire a job skill before leaving the 12th grade must have access to a full range of post-high school programs to train them for employment at their highest potential. Vocational and technical programs should be readily available to most adults through adult high schools and community colleges. The rapidity with which Americans will change jobs in their lifetimes must be matched by the variety and accessibility of training programs through which new skills and subject matter can be learned at any age in every locality.

Changes in the elementary curriculum are also needed. Exploration of the world of work should begin early. Respect for work and pride of workmanship are essential in a trillion-dollar economy. Direct job-related instruction, starting in the upper elementary grades, should be made available for some pupils.

We recommended that substantial Federal funds be allocated to support curriculum development, teacher training, and pilot programs in vocational education. No Federal investment will bring a higher return. We challenge State and local governments to throw off old habits and take a hard, fresh look at what they are doing in vocational education. We urge the public to watch carefully, and to demand and support the innovations that work.

MONEY

For society, as a whole, educating youth for employment costs less than educating them for the college they will never reach and providing remedial training thereafter. In the budget of a particular school district, however, to prepare a student for a job costs more than to prepare him for college. Classes usually must be smaller; equipment and facilities are more expensive; a good job placement service is more costly than a good college enrollment service. The added cost of vocational education is a reason—or an excuse—explaining why most school districts have shirked the duty to provide it adequately.

We do not condone the misallocation by local districts of their resources. But we recognize the real pressures from teachers for salaries that at least keep pace with inflation and from taxpayers whose property tax rates have mounted rapidly. ***We believe that the reform of American schools the Nation so desperately needs will not come about if the Federal government continues to invest nearly $4 in remedial manpower programs for each $1 it invests in preventive vocational programs. If the Federal government will substantially support the additional initial cost of educating youth for employment, we believe that the financial, personal and social costs of unemployment can be dramatically reduced.***

The 1968 Vocational Amendments create a statutory framework under which substantial Federal appropriations can be directed toward the prevention of further increases in the ranks of the unemployed and underemployed. Congress has given us the blueprint. Now we must furnish the materials with which to build the structure the American people expect and demand.

Respectfully submitted.

Hugh Calkins, *Chairman*, Michael Alarid, Findlay C. Allan, Richard Allen, H. S. Brown, Agnes Bryant, Lowell A. Burkett, Hugh Calkins, Amo DeBernardis, Marvin J. Feldman, Cernoria D. Johnson, Oliver P. Kolstoe, John W. Letson, W. E. Lowry, Alice B. McLean, Jack Michie, Luis M. Morton, Jr., Charles F. Nichols, George L. Ramey, Samuel H. Shapiro, Donald H. Smith, Robert M. Worthington, *Members of the Advisory Council.*

SECOND REPORT—NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

VOCATIONAL EDUCATION AMENDMENTS OF 1968, PUBLIC LAW 90-576

NOVEMBER 15, 1969

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION,
Washington, D.C., November 15, 1969.

Hon. ROBERT H. FINCH,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: We transmit with this letter, as our second report, recommendations with respect to comprehensive manpower legislation, Federal support for post-secondary institutions, and the position of vocational education in the administrative organization of the Federal government.

We believe that our recommendations, if adopted, would provide Federal support for the objective that education become as relevant for those American citizens who do not graduate from universities as for those who do.

Sincerely yours,

HUGH CALKINS.

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

The First Annual Report of the Council, issued July 15, 1969, was concerned primarily with national attitudes and is available upon request.

SECOND REPORT

In its First Report the Council pointed out that vocational education in the United States suffers from a national preoccupation that everyone must go to college. Government at all levels—school administrators, teachers, parents and students—are all guilty of the attitude that vocational education is designed for somebody else's children. What is needed, we urged, is a new respect for vocational and technical education as career preparation at all levels.

In the four months that have passed since we issued our First Report, the Council has considered the Federal approach to funding, the Office of Education's organization and role, and present and proposed manpower policies and legislation. In light of these considerations, this report recommends fundamental policy changes for the Federal government in these areas. If these policies are adopted they will provide Federal support for the objective that education become as relevant for those American citizens who do not graduate from universities as for those who do.

Our recommendations are based on four concerns:

1. A concern for persons who are flowing into the pool of unemployed as strong as our concern for those already among the unemployed and underemployed

Last year the Federal government allocated $1.6 billion in support of recruiting, counseling, educating, training, and job placement efforts for approximately one million men and women who suffered under economic, educational, or physical handicaps. But as of last October, Labor Department statistics show that the unemployment rate of our poverty neighborhoods had shown no over-the-year improvement.

In an average year, 700,000 young men and women drop out of the nation's schools before graduating. Some of these drop-outs find jobs, but many of them flow into the pool of unemployed, lacking the skills and preparation which would make them employable. To reduce this flow, in fiscal year 1968 the Federal government spent $65 million for part-time jobs designed to keep youths in school and provided some portion—$10 million would be a generous estimate—of a total vocational education expenditure of $262 million, for the career training of the disadvantaged.

The allocation of far more Federal dollars to the problem of the pool than to the problem of the flow is wasteful and inefficient. This nation will never reduce its pool of unemployed until the Federal government gives as much attention to reducing the flow as it gives to trying to reduce the pool.

2. A concern for directing the disadvantaged into the mainstream of vocational and technical education as career preparation, rather than into separate programs

Federal legislation now encourages the development of separate programs for the disadvantaged. Such programs say to the disadvantaged that they are second-class citizens who cannot make it in the mainstream. Such programs appear to shut the door to career advancement. What the disadvantaged want and need is access to vocational and technical programs for career preparation in the mainstream. Counseling, tutoring, and other support and assistance are essential, but separateness destroys dignity.

3. A concern that Federal funds be used primarily to cover the additional costs of vocational and technical education as career preparation as distinguished from the total costs of such education

A principal reason local school districts have been slow to make vocational education programs available to all who want them is that the initial costs of vocational education are higher than for college preparatory programs. The efficient way to use the Federal dollar to encourage vocational and technical education as career preparation is for the Federal government to pay all or a substantial part of these *extra* costs. For example, an appropriate vocational program might cost the Federal government $1,500–$3,000 if the student enrolls in a separate, fully Federally-supported program, but a fraction of that amount would be needed if the Federal government paid only the *extra* cost of a vocational program for that student in a mainstream secondary or post-secondary school.

4. A concern for coordination of vocational education as well as manpower programs

The inefficiency of the present uncoordinated and overlapping vocational education and manpower programs is widely recognized, and solutions have been proposed to the Congress. These proposals bring some order to manpower training, but fall far short of what is needed. They will fail in practice to make use of mainstream, secondary and post-secondary vocational and technical career development programs, and they will create in many communities a dual system of public education.

These concerns lead us to one fundamental policy: ***The Federal government should invest at least as much money in reducing the flow of untrained youth as it invests in reducing the pool of unemployed, and most of the Federal investment should be concentrated in paying the additional cost of vocational and technical programs of career preparation (as compared with programs which prepare for further education) in high schools and post-secondary institutions.***

To carry out this policy, the Federal government should take the following three actions now:

1. Require that communities develop coordinated plans for reducing both the flow of untrained youth and the pool of unemployed adults

Legislation presently proposed by the Administration would establish in every community a prime sponsor, normally the mayor, who is to plan and administer Federal support for all manpower training within the community. In the Council's opinion such local planning, so directed, limited only to manpower, will further direct attention and money to the problem of the pool and away from the problem of the flow. It does not make sense to plan how to find jobs for the unemployed without also planning to prevent additional numbers of young people from flowing into the ranks of the unemployed.

The Council recommends:

***First*, that local communities be required and enabled to plan *both* to reduce the flow of untrained youth and to reduce the pool of unemployed.**

***Second*, that the local plan employ, to the maximum, existing mainstream institutions and programs.**

***Third*, that the local authority which prepares the plan and administers Federal support for the plan include not only the mayor, but also the superintendent of schools and the head of the appropriate post-secondary career development institution.**

***Fourth*, that the local body which prepares the plan should include both professional and non-professional representatives of the local community.**

Fifth, that the Federal funds which are subject to the plan include not only manpower training funds, but also vocational education and related training funds earmarked for the disadvantaged.

Sixth, that the language of the Vocational Education Amendments of 1968, earmarking funds for the disadvantaged, be amended to eliminate the implication that programs for the disadvantaged must be separate programs.

Seventh, that Education be given an equal voice with Labor at state and Federal levels in supervising the formation and administration of the plan.

2. Focus Federal support for community colleges and other two-year post-secondary institutions on vocational and technical programs as career preparation

Legislation proposed in the Senate extends general Federal aid to community colleges. Such general aid would do little to overcome our national preoccupation with general liberal arts education.

Federal funds should instead be the catalyst encouraging comprehensive commuity colleges and post-secondary institutions to expand and strengthen their vocational-technical career offerings. The same principle—that the Federal government pay the extra cost of a vocational program—should apply to post-secondary as well as to secondary education.

3. Overhaul the Federal administrative organization to permit the Federal government to exercise leadership in vocational education as well as in manpower training

There is a reason why the Federal government is more effective in responding to the crisis of the pool of unemployed than in reducing the flow of untrained youth into the pool. That reason is that the Assistant Secretary of Labor for Manpower is two doors removed from the President, while the Associate Commissioner for Adult, Vocational and Library Programs is five doors removed from the President. There is no more dramatic example in the Federal government of how national objectives are obstructed by a badly designed administrative organization.

We favor a separate Department of Education, for only in that way will Education speak in concert with Labor to meet the critical needs of the country for vocational and technical education as career preparation. Until that organization is achieved, we recommend that the position responsible for vocational education in the Office of Education parallel as nearly as possible the position responsible for manpower training in the Department of Labor.

Respectively submitted.

Hugh Calkins, *Chairman*, Michael Alarid, Findlay C. Allan, Richard Allen, H. S. Brown, Agnes Bryant, Lowell A. Burkett, Hugh Calkins, Amo DeBernardis, Marvin J. Feldman, Cernoria D. Johnson, Oliver P. Kolstoe, John W. Letson, W. E. Lowry, Alice B. McLean, Jack Michie, Luis M. Morton, Jr., Charles F. Nichols, George L. Ramey, Samuel H. Shapiro, Donald H. Smith, Robert M. Worthington, *Members of the Advisory Council.*

THIRD REPORT—NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

VOCATIONAL EDUCATION AMENDMENTS OF 1968, PUBLIC LAW 90-576

JULY 10, 1970

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION,
Washington, D.C.

Hon. ELLIOT RICHARDSON,
Secretary, Department of Health, Education, and Welfare, 330 Independence Avenue SW., Washington, D.C.

DEAR MR. SECRETARY: In this, our Third Report, we have devoted our attention to one of the most glaring failures of the American education system: its inability to effectively prepare the disadvantaged for full participation in society. The enclosed Report includes our recommendations for dealing with this problem, and offers suggestions on integrating school and work experience, providing needed guidance for dropouts and others who do not easily conform to the regular school system, and developing programs for the disadvantaged which do not separate them from the mainstream of American education.

We believe that our recommendations, if adopted, would provide Federal support for the goal that every American child be given an education relevant to his special needs. In addition, we feel that the enactment of these recommendations would go far in trying to eliminate some of the most long-standing inequities of an educational system which has been geared to the "average" student, to the neglect and detriment of significant minority groups.

Sincerely,

HUGH CALKINS, *Chairman.*

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

THIRD REPORT

In its First Report, the Council urged that the nation overcome its preoccupation with the idea that college is desirable for everyone, and that it develop a new respect for vocational-technical education as an effective form of career preparation. In its Second Report, the Council recommended that the Federal Government make fundamental policy changes in its approach to funding, in the organization and role of the Office of Education, and in present and proposed manpower policies and legislation.

In this, the Third Report, the Council deals with what it considers the basic challenge to American education today: Can it equip for effective participation in the life of the country, the 20 percent of the population now excluded because of inadequate educational opportunity?

The United States has developed into a technological society with no place for the uneducated, unskilled individual. The present educational system works well for the majority, i.e. for the children of the educated who with their talents increase the complexity of society and broaden the gap that separates them from the uneducated.

But a clock is ticking. The human time bomb that is the disadvantaged, the minority, the poor is approaching the moment of fracture. Deeply frustrated, untrained, impatient youth have concluded from their observations of the Sixties that the only way to create change is through violence. Their impatience is the mechanism of explosion.

The primary reason this nation has not yet established a society in which there is equal opportunity to learn and work is that it has not yet tried. Early in the Sixties, the people of the United States resolved to place a man on the moon within the decade. They were successful. The objective was accomplished because the resources and the attention required were devoted to the task.

In the mid-Sixties, the nation embarked upon an effort to eliminate ignorance and poverty in the United States. A few years later, it was seen that this objective could not be achieved easily or quickly, and the country drew back. A distant war and a new concern about environment are now consuming the attention once directed to these goals.

What America needs most is a commitment to fulfill its most basic ideal. This nation was founded on a belief in the inherent worth of every individual. The fulfillment of individual potential is the country's historic mandate.

To achieve that mandate in the Seventies, the Council recommends that the nation take four basic steps:

1. *Recognize that employment is an integral part of education.*

Much attention has been given to the effect of education on employment. Not enough has been paid to the opposite proposition: that employment, as an integral part of education, is essential to the learning experience of many youths.

a. *Every secondary school should be an employment agency.*

For many years, universities and colleges have operated employment offices through which graduating students and prospective employers conduct negotiations about jobs. In a handful of comprehensive schools, and in many vocational schools, a similar employment service is conducted for graduating seniors. This practice must become universal. It must become a priority national objective that schools in disadvantaged neighborhoods establish employment offices at once and accept a responsibility for removing barriers to the employment of their graduates.

Many educators will oppose this conclusion. They will say that finding a job is the responsibility of the employment service, not of the school. The Council believes this attitude ignores the importance of developing an understanding, on the part of the student, of the relationship between his academic work and life in the real world. Schools which provide vocational education without also providing a job do not have a complete program. Such schools should not have full vocational funding.

Students learn best when they want to learn. A school successfully placing its students in jobs which open up careers is more likely to have motivated students than a school which does not. A school in which getting a job is part of the curriculum is more likely to have students who understand why reading and mathematics make a difference than a school which regards employment as somebody else's business.

b. *Part-time employment should be a part of the curriculum.*

There are a few essentials in the curriculum. Communication skills, mathematics, and some ability in problem solving are widely recognized to be among them. Not so widely recognized are the habits and attitudes which add up to employability.

Many children learn these attitudes at home. A father who is regularly employed and displays a responsible attitude toward his job is likely to teach employability to his children without much help from the school. A child who is brought up in a family in which there is no employed adult, or in which observed employment is sporadic and casual, is not likely to learn at home how to hold a job. For such a child, employability is as important a part of the school curriculum as reading.

A good way to teach employability where it is not an integral part of every day life, is through employment. Every school with students who are not learning desirable employment habits at home should, to the extent the labor market allows, make part-time employment a regular part of the curriculum. Where the labor market does not provide enough part-time jobs, the work-study program under the Vocational Education Act should be adequately funded and utilized as a substitute for work experience in private employment.

It will cost money to locate part-time work stations and to supervise, counsel and instruct the students who hold them. Few expenditures, however, will bring a bigger return in linking education with productivity, and in making schools effective in preparing young people for meaningful careers.

c. *The further education of the dropout.*

This Council recommends a basic change in the national attitude toward dropouts. Currently, they are considered failures. The President of the United States annually appoints a committee to keep them in school. Critics and citizens measure the performance of school systems by their ability to reduce the number who drop out. Those who do drop out are considered disgraced, and are lost by the school systems, and rarely welcomed back.

Where our educational system fails these young people is not so much in its inability to halt their early departure from school, as in its failure to recapture them later. A school system should in fact, as well as in theory, keep jurisdiction over the young people within its borders until they are either graduated or have reached such an age that they may be properly regarded as adults.

Schools should invest as much in follow-up and counseling for those who drop out as for those who remain in school. School systems need to establish programs for the young people who have had their first employment experience and are ready for further education. The adult high schools and the cooperative programs which are being established in many cities are healthy developments which must be encouraged.

2. *Give priority to programs for the disadvantaged without separating the disadvantaged from the mainstream of education.*

In our Second Report the Council said:

> **Federal legislation now encourages the development of separate programs for the disadvantaged. Such programs say to the disadvantaged that they are second-class citizens who cannot make it in the mainstream. Such programs appear to shut the door to career advancement. What the disadvantaged want and need is access to vocational and technical programs for career preparation in the mainstream. Counseling, tutoring and other support and assistance are essential, but separateness destroys dignity.**

Present legislation and policies encourage separateness by the form of the subsidy. It is time that accountants stop making policy for vocational education. A system must be devised in which the necessary subsidies to vocational education programs do not require that the programs be carried out in a way which defeats many of their most basic purposes.

3. *Encourage parents and students to participate in the development of vocational programs.*

In its First Report, this Council called attention to the prevalent attitude that vocational education is something which is good, but only for someone else's children. Among minority groups there is a well-founded suspicion that counselors, especially majority-group counselors, are influenced by a conviction that minority youth are fit only for the more menial occupations. Because minorities are underrepresented in many occupations, they are also underrepresented on vocational facilities, whose majority-group image is forbidding to them.

In time, this attitude may be overcome, this suspicion proven unjustified, and this image replaced. In this decade, however, these are factors which no one planning vocational education can ignore. There are some vocational facilities which are underutilized because they were planned for, but not with, their clientele. Vocational education will not succeed in attracting the clientele which can profit most from it, unless it involves that clientele in its planning and direction.

For many years vocational educators have used industrial advisory committees to assist in developing curriculum, locating cooperative job stations, and employing graduates. Now vocational educators must also create advisory committees of parents and students. Only by doing so will vocational programs be successful in appealing to many students who are not planning to go on to post-twelfth grade education, and whose career training must, therefore, be acquired in school.

4. *Establish residential schools for those who need them most.*

There is mounting evidence that America must make an investment in residential schools for some adolescents who cannot cope with their homes or their neighborhoods. A nation whose boarding schools are conducted only for the wealthy and for those under juvenile court sentence has misplaced its priorities. There are young people who will respond to remedial education and career preparation only if separated from home and neighborhood conditions which make it impossible for them to learn in a day-school setting. Every major metropolitan community and every poor rural area needs a residential school for such youngsters.

Congress has never made a clear decision on whether a national investment in residential schools for disadvantaged youth should be made and, if so, under what auspices it should be conducted. The Job Corps was a courageous experiment in the Economic Opportunity Act of 1964. Some Job Corps centers, located near urban areas and serving young people sixteen and seventeen years old, have been notably successful. The Advisory Council recommends that the residential school provisions of the 1968 Vocational Amendments be funded. School authorities must be given, on an experimental basis, an opportunity to demonstrate that residential schools with career preparation geared to disadvantaged youth can prove to be a worthwhile investment.

By enacting the 1968 Vocational Amendments, Congress declared its intent that a better society, based upon educational opportunity, should be built. Intent, however, even when it is the law of the land, does not alone bring action. The disadvantaged of this country have made it clear that they are tired of intentions which are not backed by adequate funds or by a genuine national concern. Eighteen months have gone by since the passage of the Vocational Amendments, and progress has been slow. Strong Executive leadership designed to translate intent into concrete, workable programs is due. The disadvantaged will no longer accept promises.

Respectfully submitted,

Hugh Calkins, *Chairman*, Michael Alarid, Richard G. Allen, Lowell A. Burkett, Marvin Feldman, John W. Letson, W. E. Lowry, Jack Michie, Luis M. Morton, Charles F. Nichols, George L. Ramey, Robert M. Worthington, *Members, National Advisory Council.*

FOURTH REPORT—NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

VOCATIONAL EDUCATION AMENDMENTS OF 1968, PUBLIC LAW 90-576

JANUARY 16, 1971

The National Advisory Council on Vocational education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION,
Washington, D.C., January 16, 1971.

Hon. ELLIOT RICHARDSON,
Secretary, Department of Health, Education, and Welfare, Washington, D.C.

DEAR MR. SECRETARY: In its three previous reports, the National Advisory Council on Vocational Education has discussed some of what it considers the most pressing problems in vocational education: attitude, curriculum, Office of Education organization, coordination with manpower programs, and services to the disadvantaged. In this, its Fourth Report, the Council deals with one of the major causes of these problems. We have allowed to develop in this country a system of financing vocational education which precludes the creation of imaginative career education programs in the public schools. Many of the complaints so frequently heard about the quality of vocational education courses, facilities, and faculties can be traced to a funding system which so narrowly defines what can be funded as vocational education that it excludes new and often needed forms of career education. The enclosed Report outlines the problems associated with our present system of financing vocational education and presents the Council's recommendations for overcoming these problems.

The Council believes that the new financing system it proposes in this Report concurs fully with the Administration's present emphasis on alternative methods of delivering funds to the states. If adopted, the new system outlined in this Report would allow for the development of career education which responds solely to the needs of the students, rather than to short-sighted definitions and financial restrictions. Moreover, the Council is convinced that its recommended method of financing would allow for the achievement of local, state and national objectives in vocational education and would, in this way, contribute greatly to developing the potential of individual students and to meeting the needs of the nation's economy and society as a whole.

The Council looks forward to working closely with you in developing the details of this new system and in working toward the improvement of all aspects of vocational education in the country.

Sincerely,

Hugh Calkins, *Chairman.*

FOURTH REPORT

There is a fiscal crisis in education in America. The need is urgent to replace extensive reliance on property taxes paid by home owners with greater reliance on broadly based taxes, and to revise the formulas by which state and federal funds for general education support are allocated to local schools and colleges. In this report the National Advisory Council on Vocational Education turns its attention to five unique problems of financing and planning vocational and technical education. They are at the root of much of what needs attention in career education today.

I. PROBLEMS

A. *The Local Voter and Differential Costs.* The local voter is much more willing to support educational programs which affect all students equally, than educational programs which benefit only some of the students. The long history of inadequate attention to the handicapped and the disadvantaged eloquently testifies to this fact. Vocational-technical education frequently requires start-up costs of building conversion and equipment, supplies, smaller classes, and additional staff to find and supervise job stations, counsel students, and place them in jobs. These costs combine to make most career education more expensive than a college preparatory or liberal arts course. Local school and college officials, hard pressed to balance the budget and required to turn to the voter every few years for operating funds, find it nearly as difficult to allocate local resources to defray these differential costs as to meet the costs of educating the handicapped and disadvantaged.

B. *The Incentive Often Becomes a Ceiling.* While the Advisory Council strongly supports federal and state assistance to local educational institutions in meeting the differential costs of career education, it has found that what is intended, and required, as an incentive often becomes a ceiling. The Council knows of few school districts with more vocational education classes than are reimbursed by the state government for partial or total cost. Most school districts will expand the number of general and college preparatory classes they offer to meet demand; however, they will meet the demand for training in careers only if a higher level of government provides a special subsidy.

C. *The Incentive Often Becomes a Strait Jacket.* When the costs of any program are shared among different levels of government, each level tries to shift to the other levels as much of the cost burden as possible, and to repel the efforts of the other levels to shift costs to it. State governments defend themselves against the efforts of local governments to shift vocational education costs to the state level by rigorously enforcing a tight definition of vocational education. Typically, the definitions of Vocational Education now used in the United States speak in terms of inputs. One example is to specify that vocational education funding can only be received for a welding class conducted with equipment that meets state standards, in a classroom that meets state standards, by a teacher who meets state standards, to a prescribed number of students enrolled in the eleventh or twelfth grades. Such a definition often becomes a strait jacket. A school cannot offer welding to seventeen year old boys in the tenth grade, subcontract welding instruction to a welding shop in the neighborhood, or teach arithmetic or reading as a part of the welding course, because such irregularities violate the definition and impair the subsidy.

D. *The "State Plan" Is Not a Viable Planning Instrument.* At the heart of the process of allocating federal money for vocational-technical education is a document called the "State Plan." While its existence represents a significant advance over the unplanned character of most education, in many states it falls far short of presenting what the objectives of the state are, how the state proposes to achieve them, and how long it expects that to take. Rigidly structured by the federal rules and regulations, the plan serves as a compliance document with specifications so meticulously detailed that its annual preparation becomes a chore for the expert in grantsmanship and its review in the Office of Education has literally been entrusted to secretaries.

E. *The loss of Federal Initiative.* The national objectives in vocational education cry out to be accomplished. Vocational education should be accessible to all persons who desire it; the "general" program which still survives in many high schools should be eliminated so that all students are prepared either for a job and/or for further education; the new careers in health services, fluid power, horticulture, aviation, data processing, appliance repairing, and the like need to be established; girls need to be admitted to many industrial programs; career training institutions should take the responsibility for job placement of students; vocational education needs to be diffused through the curriculum; priority must be given to the disadvantaged, both urban and rural; vocational orientation in the elementary years must be expanded. Under the 1968 Amendments to the Vocational Education Act, the federal government has little power to affect the achievement of these national objectives. The states have complied with the minimum standards and set-asides required by that legislation, and have met the required 50–50 matching by ratios of 500% or more. Additional Federal dollars under those Amendments will strengthen vocational education on its present course, but will not affect its course.

II. NACVE RECOMMENDATIONS

A. *New Funding and Planning Technique.* The Administration should prepare and the Congress adopt a new technique in federal-state financial relationships. Federal assistance for vocational-technical education should be divided into two parts: a support component, comprising about 75 percent of available funds, and an incentive component constituting the remaining 25 percent. The basic support component would be allocated among the states under the same formula as existing basic grants, subject to compliance by the states with the more important of the minimum conditions now set forth in the 1968 Amendments. The remaining 25 percent of the funds should be allocated by the Office of Education as an incentive to encourage states to pursue national objectives effectively. This allocation should be made by using a point system under which each national objective would be accorded an appropriate number of points and a state would be awarded a larger or smaller portion of those points in proportion to its efforts to achieve that objective. A system for reviewing the Commissioner's determination as to the number of points to be awarded should be established.

To confirm that the states are in compliance with the minimum requirements for the basic grant, a simple compliance document would be used, in which the states would merely certify that they are in compliance with the federal requirements. To qualify for incentive grants, the states would in addition be required to submit, at the beginning of each three or five year planning period, a plan specifying what objectives the state proposed to pursue, what steps it proposed to take to achieve each objective, and, in quantified terms, how much progress it expected to make. At the conclusion of each planning period the state would furnish an evaluation document in which, using sample school attendance area data, as well as state figures, it would report upon its progress in achieving the objectives of the plan.

This proposal does not constitute an improper interference by the federal government with the prerogatives of the states. If the Congress provides 75 percent of the Federal grant with few strings attached, it surely can properly allocate more incentive money to those states which are more actively pursuing national objectives than to those which are not.

B. *National Fiscal Objectives for Vocational Education.* Among the national objectives specified as entitling a state to a larger incentive grant should be some crucial fiscal objectives. Among them we recommend the following:

1. A state should be rewarded if it authorizes alternative delivery systems of vocational-technical education which permit administrators to escape the program strait jacket we have described. A school which is willing to have the benefits and the costs of appropriately monitored innovative vocational education programs should be entitled to the same Federal and state assistance as a conventional program reaching comparable results with comparable costs.
2. A state should receive a larger incentive grant if its vocational education assistance formula encourages school districts to expand their vocational offerings without imposing a ceiling on the number which can be created. In most cases, a proportionate reduction of dollars per class is a better way to handle an unexpected rapid expansion than a limitation on the number of classes to be subsidized.
3. Career education funds should be allocated among local districts by an equalization formula which takes into account the total tax effort of the districts. Total tax effort includes municipal as well as school taxes. Defining tax effort in terms of school taxes alone is in most states a tragic error contributing substantially to the fiscal breakdown of many central city and rural school systems.

4. A state should earn an additional allocation if it appropriately recognizes the special problems of career education in rural areas, by supporting, for example, residential vocational-technical schools.

5. It is a national objective that states abolish "general" education and redirect those resources to prepare students for a job entry skill in a career pattern. Using the incentive portion of the Federal vocational-technical grant-in-aid to achieve this objective is an extraordinarily efficient use of federal funds.

6. A state should be encouraged by the Federal incentive grant to evaluate its career education programs. Much better data than is now available must be obtained if planning is to be effective.

C. *National Support for Effective Planning.* Finally, the NACVE recommends that Federal grant-in-aid funding provide adequate, consistent categorical support for research, curriculum development, planning and evaluation. These activities will be neglected at the local level unless the states support them; they will be neglected at the state level unless the federal government supports them. Their effectiveness is destroyed by stop-and-go financing.

Improving the administration of education is an important national objective. To achieve it, the Federal Government should (1) clearly articulate the national objectives; (2) provide basic support to the states in consistent amounts known well in advance on a certification of compliance with minimum conditions; (3) provide incentive support in amounts known well in advance in proportion to state effort to achieve the national objectives as revealed by thoughtful multi-year plan and evaluation documents; and (4) provide consistent and adequate support for state-level research, development, planning and evaluation.

If the Administration and the Congress will take these steps in 1971, the decade of the seventies will be a period in which America moves rapidly toward its goal that every citizen has an opportunity to acquire the self-respect that comes from being self-supporting in a career in which the future can be brighter than the past.

Respectfully submitted,

Hugh Calkins, *Chairman*, Michael Alarid, Richard G. Allen, Daniel H. Beegan, Mrs. Louis Bachman, Lowell A. Burkett, Lawrence F. Davenport, Jerry S. Dobrovolny, Marvin J. Feldman, Jack Hatcher, John W. Letson, W. E. Lowry, Donald N. McDowell, Jack Michie, Luis M. Morton, Charles F. Nichols, Thomas Pauken, George L. Ramey, Norman R. Stanger, Steve W. Stocks, Robert M. Worthington, *Members, National Advisory Council;* Calvin Dellefield, *Executive Director.*

FIFTH REPORT—NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

VOCATIONAL EDUCATION AMENDMENTS OF 1968, PUBLIC LAW 90-576

JUNE 21, 1971

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION,
Washington, D.C., June 21, 1971.

Hon. ELLIOT RICHARDSON,
Secretary, Department of Health, Education, and Welfare,
Washington, D.C.

DEAR MR. SECRETARY: The National Advisory Council on Vocational Education is pleased to submit this, our Fifth Report, in support of the Administration's positive stance toward career education.

As we understand the history of vocational education in our nation, Commissioner Sidney P. Marland is the first chief administrator at the Office of Education to identify career education as the Number One priority in Education. We believe Vocational and Technical Education is an important part of this concept.

In this report we have attempted to recognize the various publics needing career education and have urged the policy makers in your department to assist the Commissioner in attaining his goal.

Sincerely,

LAWRENCE DAVENPORT, *Chairman.*

FIFTH REPORT

The values most Americans hold dear include that each man living under equality of opportunity should work at a job of his choice within the limits of his ability, and that economic well-being is indispensable to the freedom and dignity of the individual.

In its first four reports, the National Advisory Council on Vocational Education dealt with some of the reasons that our present educational system has failed us in achieving these goals. They dealt with the following major items in depth:

Report 1—Dealt with the national attitude toward vocational education as a system designed for someone else's child.

Report 2—Dealt with the approach of federal funding to reduce the flow of untrained manpower into the pool of unemployment.

Report 3—Dealt with employment as an integral part of education.

Report 4—Dealt with the problems involved in local support, state plans, the lack of federal initiative and the need for effective national planning for vocational education.

In this, our Fifth Report, the Council wishes to examine those forces which have prevented the adopted of some of the recommendations of the first four reports. While the mood of the National Advisory Council today is one of impatience, the Council senses the mood of the public as punitive.

Since the Council represents various publics, the question is being asked: Is anybody listening to the voices of the people? Is anybody listening to:

The forty million elementary school children who need career orientation.

The seven and one-half million young people who seek employment after graduation.

The seven hundred and fifty thousand high school and college students who drop out each year, virtually all without marketable skills.

The unemployed, or soon to be unemployed, workers not expecting callback because of shifts in technology or shifts in labor market demand.

The highly motivated working poor stuck in low-skill, low-paying jobs, who need to hold two jobs to earn enough income to cover their family needs.

The mothers of school age children who need and want to re-enter the labor market.

The older workers involuntarily retired who want to continue to work, but need a marketable skill.

The over three hundred thousand mental hospital patients discharged every year who need a marketable skill to sustain themselves.

The over two million veterans returning to civilian life.

The inmates in our prisons who need pre-and post-release skill training to cut down on the high rate of recidivism.

The disadvantaged and handicapped.

The reports from the State Advisory Councils on Vocational Education.

The taxpayer as he votes down bond issue after bond issue on his local educational level.

IS ANYBODY REALLY LISTENING? WE DO NOT THINK SO!

There is an "educational" consumer revolt developing in our land today. The public's limit of tolerance has been reached and they are on the verge of wresting control of the delivery of educational services from the managers of public education. Public officials responsible for education, both elected and appointed, need to be reminded of Alexander Hamilton's statement, "Here, sir, the people govern!"

Like the general public, we must ask, "Why is our educational system not responsive to the demands of our society?" Since 1917, Congress has registered its concern through legislation for the need to infuse vocational education into the spectrum of educational opportunities. The most recent congressional action being the Vocational Education Amendments of 1968. Whenever public officials—the governors, the state legislators, the congressmen, the mayors—seek elective office, they usually embrace the concept of sound vocational education programs. It is one subject about which there is no controversy. In view of this overwhelming demand, the National Advisory Council must ask why do the managers of our educational system continue to be so maladroit in implementing a policy which would effect positive change and meet the demands of the people.

Historically, various educational leaders have written volumes which are replete with utterances advocating the implementation of career education programs.

The present Commissioner of Education has endorsed strongly the concept of career education. The Council is anxious to assist him in the development of a strong program in vocational and technical education as part of career education.

We ask the question, with all of this endorsement, where has vocational and technical education been?

On the list of budgetary priorities?—AT THE BOTTOM?

On the organizational chart of U.S.O.E.?—AT THE BOTTOM.

In the legislative goals of those advising the decision makers of the Department of Health, Education and Welfare?—AT THE BOTTOM.

The Council has been reluctantly forced to the conclusion that the reason for the general educational system being kept bankrupt with respect to vocational education, is that the advisors to the educational policy makers have failed to provide the leadership and insight necessary to achieve the educational goals the people of our country demand.

Who are the keepers of the keys of the educational policy making establishment?

Leaders from the prestige universities.

Professional associations.

Educational associations.

Decision makers of educational policy at the state and local level.

The general educationally oriented bureaucrats.

We implore these influential decision makers to join the Commissioner in the active reorientation of our educational system to embrace the concept of a totally articulated vocational and technical education thrust.

To insure the intent of the people, the Congress, and the host of supporters of vocational and technical education, the Council recommends that programs in vocational and technical education continue to be legislated. The Department of Health, Education and Welfare must continue to be held accountable by the Congress under the law. Any new legislation must guarantee that vocational and technical education has parity in the organizational structure of the Department of Health, Education and Welfare.

An initial step in the implementation of this parity within the educational structure is the establishment of an Office responsible for vocational and technical education within the Office of the Secretary of Health, Education and Welfare to advance the Commissioner's stated goals for career education as a national policy. This Office should be charged with the responsibility of keeping such programs at the high-

est national priority in education. The Office should be headed by a person who is eminently well qualified in the fields of vocational and technical education as a part of career education and be accorded the rank of Assistant Secretary. He must have an adequate supportive staff to enable the Office to function effectively. The establisment of this Office with the appropriate level of leadership will provide visibility and continuity in addition to decision making responsibility on behalf of vocational and technical education at the top levels of education and government.

We urge Congress to accept the responsibility of appropriating the full authorizations that have been provided for down through the years for vocational and technical education. Funds must be provided for full implementation immediately, as well as providing the necessary funds for future needs.

The vast majority of the public in our nation live by a familiar vision of our public schools. They believe our schools have traditionally fulfilled a dual function—preparing young people for a career in adult life and serving as transmitters of our cultural heritage.

The Council implores our national educational policy makers to join in the full implementation of a viable educational program to provide for the full economic development of our human resources. To do anything less is to abandon positive educational leadership.

Respectfully submitted,

Lawrence Davenport, *Chairman*, Mrs. Louis Bachman, Daniel H. Beegan, Lowell A. Burkett, Frank Cannizzaro, Mrs. Joseph Coors, Jerry S. Dobrovolny, Marvin J. Feldman, William Gellman, Jack Hatcher, Mrs. Hugh Hughes, John W. Letson, W. E. Lowry, Duane Lund, Donald N. McDowell, Luis M. Morton, Jr., Thomas Pauken, George L. Ramey, Norman R. Stanger, Steve W. Stock, Delfino Valdez, *Members, National Advisory Council;* Calvin Dellefield, *Executive Director.*

PART B

EXCERPTS FROM THE STATE ADVISORY COUNCILS' 1970 ANNUAL REPORTS

ALABAMA

Chairman—J. E. Mitchell, Jr.
Ex. Director—Jack Mitchie

DISCUSSION

1. Definition of Plan

A careful indepth study of the State Plan for Vocational Education reveals gross inadequacies in planning and in methods of determining state needs. The current plan calls for 900% increase in expenditures in 1975 with no provision to attract students or qualified teachers. As an example, in one service area the training output projections for 1971 are over 17,000 with an occupational demand of less than 1,300. In other service areas reported, the same idea is revealed. This points to a lack of understanding in the vocational education field of the needs of the business world for trained employees.

2. Human Resource Assessment

In essence, we discovered that vocational education in Alabama is training six persons for each job opportunity that exists in specific areas related to this training. Since the unemployment rate in Alabama does not reflect this level of unemployed people, our only conclusion is that the trained student in Alabama is leaving the State to seek employment elsewhere. Alabama is losing its single most important resource: Trained manpower. In effect as noted in the survey, vocational physical equipment and facilities are adequate in the State of Alabama. However, within any given geographic area, duplication of effort by repetition of program has been noted. This duplication of effort has caused competition for students, resulting in small classes and high costs of training. It has been found that comprehensive high schools provide lower costs per student and more effective job placement opportunities than do area secondary vocational schools. An example of cost comparison can be taken from an area of the State in which a private school is training in a service area at $750 for a six month course with effective placement rate, when a similar program in the public school is two years in duration at a cost of $800 with a lower placement rate; this constitutes duplication of effort and unrealistic program length.

3. Impact of 1968 Amendments

The intent of the Vocational Education Amendments of 1968 had a very positive effect on the State of Alabama through focusing attention on areas of need. However, the rules, regulations and guidelines set forth by the U.S. Office of Education as a result of the 1968 Amendments caused the State to develop a plan which in effect was merely a compliance document to qualify the State for federal funds and would not reflect the true intent of the 1968 Amendments. Change affected by 1968 Amendments cannot be measured because of lack of sufficient data but a data retrieval system is under development by the Research Coordinating Unit at the University of Alabama. It is hoped that within the next year this system will become operational and provide proper data basis.

4 Effectiveness of Meeting Needs

The business community's assessment of graduates from area vocational education schools and post secondary technical schools is one of deep concern. Retraining is frequently necessary for employees who are a product of our vocational education programs. It has been long recognized that effective programs of vacational education require advice and guidance from local business and trade advisory councils. When individual members of local advisory councils were contacted for comments on the participation of the local councils in the vast majority of the cases, the local advisory council had not even met. In many other cases, individuals contacted were not aware that their name had been submitted as a member of the local advisory council.

5. Services and Opportunity

Relevancy of vocational education is generally poor and the business community needs to be brought into the vocational education programs in all areas of the State. There is strong evidence that the needs of people are not being adequately met by many of the vocational education programs in the State of Alabama. Based on sample survey information, only 30% of the graduates were employed in training related occupations. When employers were asked about the relevancy of skills, it was found that the skills were far below what might be expected in many cases. It should be noted that there were some skill areas that were very effective. It would seem that adherence to traditional areas of vocational education as described in the Smith-Hughes Act would constitute a major cause in effectiveness of programs. In comparing the effectiveness of programs in secondary schools, namely comprehensive secondary schools and secondary area vocational schools, it was found that the vocational needs of students were being served best in the comprehensive secondary schools both in terms of courses, relevance of training and training related placement. Adequate data sources for job opportunities do not exist thereby handicapping the development of a relative vocational education program.

RECOMMENDATIONS

1. Construction of additional vocational education facilities should not be undertaken without responsible analysis of specific needs by area of occupation and existing facilities.

2. Counseling and guidance programs need to be developed which will serve as liaison between the student and the job opportunities, to help him find appropriate training areas and a job when training is complete.

3. An adequate data system should be developed in cooperation with other agencies as quickly as possible.

4. Every effort should be made to develop comprehensive institutions at all levels. Purely academic institutions should inaugurate vocational programs and vocational institutions should include academic programs.

5. A recruitment program should be developed to attract qualified teachers and administrators. There should be a continuous upgrading program to keep instructors current in their respective trade area.

6. A greater and more equitable share of the State's educational dollar should be directed toward vocational education, at least equal on a percentage basis to the number of students enrolled.

7. A program of cost effectiveness information development must be undertaken at once.

ALASKA

Chairman—Louis Licari

SUMMARY STATEMENT

The 1970 evaluation report of vocational education in Alaska has been conducted and finalized in the interest of assisting the total vocational effort to fulfill more effectively the objectives and purposes for which established. The Council is concerned with the fact that some people who could benefit from vocational instruction are deprived of that opportunity because their educational system does not offer such courses.

Another concern is the image which vocational programs may have in some of our educational systems. The Council has specifically directed that all persons in a position to enhance the image of vocational programs should do so, since this also may be a barrier which would restrict the availability of some programs to those who could benefit from the instruction.

Even though the funding for the new features of Vocational Amendments of 1968 were late in being approved by Congress the Council felt that these areas should have a preliminary evaluation to give guidance for future evaluations.

A special strength of the evaluation report is that every member participated in some phase of the evaluation. The reports from each Council member was presented to the Council proper before becoming a part of the overall report.

The Council was generally impressed with the total growth of vocational education in the State. However, this observation was tempered with the realization that there is still a long way to go before filling the objectives to be served by vocational education. The recommendations made in this report are directed toward this purpose.

FISCAL CONTROL AND FUND ACCOUNTING PROCEDURES

The present funding formula which takes into account the district's ability to pay the cost of program development, the students' disadvangement and/or handicap, and the manpower projected needs has this year for the first time equalized the funding and development of secondary vocational programs.

As a result of the cost accounting approach, the legislature has gone from 10 to 20 per cent State Secondary funding in fiscal 1970, to 90 per cent funding in fiscal 1971. The 90 per cent funding now includes vocational education as well as the academic areas in the State school support foundation formula.

The requirements under the 1968 Vocational Amendments appeared to work to the inequity of the community colleges. However, the 15 per cent federal set aside for post-secondary education during fiscal

1970 placed the burden on the State to fund more full post-secondary non-degree programs. Wherein fiscal 1971, the State has accepted its responsibility by increasing its previous allotments by 400 per cent, and considering full funding of post-secondary education in 1972.

Program Development

After twelve on site visitations by the Council it is the general opinion of the group that the reluctance of local education units to become involved in total education has overshadowed the efforts of the Department of Education and the Division of Vocational and Adult Education to provide the vehicle in which good programs could be developed.

(*a*) *Handicap Programs.*—Four handicap programs were developed this year and represents the first time that earmarked monies for handicapped students was actually spent in the program for which it was designed. The State staff person worked closely with the local education agency in obtaining equipment and services directly related to the student.

(*b*) *Exemplary Programs.*—Five exemplary programs were developed directly related to identifiable student problem areas. These programs varied from drop-out work experience in large urban centers to a total school non-graded program in a local village. These programs above all else proved our previous point that in local districts where educators want to become involved, the programs perform a great service; but where community is less than totally involved, the program is just a stop gap one shot deal. It was discouraging to see the State lose $100,000 additional funding because of the reluctance of one community to accept known statistics on drop-out students.

The Council recommends that the State staff continue its development of exemplary programs until all vocational programs are at this stage. This is primarily accepting the student at whatever level and given him adequate employable skills to experience self-realization.

(*c*). *Homemaking and Consumer.*—Homemaking and Consumer education did not have a supervisor during fiscal 1970. This was partly due to the fact that the 1968 Admendments allocated less than $20,000 for homemaking education. Therefore, when the Homemaking supervisor resigned, no one was immediately hired to take her place. The State is very fortunate that the programs did not deteriorate; however, this can be attributed to the rest of the supervisory staff which took up the promotion of homemaking education whenever possible. It was through them and the State administrative staff that the great need for homemaking and consumer education was identified, and a State supervisor was employed for fiscal 1971 with a substantial increase in budget.

(*d*). *Business Education.*—Business education has proven to be one of the outstanding secondary vocational programs in the State. Utilizing all available resources each program is now using either cooperative or simulated worked experience in its training.

We recommend that within fiscal 1971, the program will be greatly expanded into adult and post-secondary programs as well. The great need for tourism and mid-management training has been well identified, and with the increased post-secondary budget, we anticipate this program development will become a reality.

(*e*) *Industrial Education.*—Industrial education still remains our one area of critical development. The hiring of a well qualified supervisor has helped immensely. During fiscal 1970, the Division worked diligently in breaking down common misunderstanding between Industrial Arts and Industrial Education. They stopped funding nice to have programs in one hour block sequences, and developed programs in two and three hour blocks designed on known employment opportunities identified by the "Manpower Outlook for the 70's." Using the cost accounting approach to program development, the industrial education programs have grown from 35 in fiscal 1969 to 75 in fiscal 1970.

The Council recommends that greater emphasis be placed on developing cooperative, innovative, and post-secondary industrial programs to meet the training needs of our expanding industrial growth. That two additional supervisors be hired: one for Industrial Arts, and one for post-secondary vocational education, so that the industrial program can develop continuity from elementary through grade fourteen.

IMPACT OF VOCATIONAL EDUCATION

During its evaluation, the Council was pleased with the growth of Vocational Education in fiscal 1970. However, there should be a greater acceptance of responsibility by local school administrators in meeting specific educational needs of students who are not benefitting from the conventional educational offering. Administrators should use their leadership to identify the needs of these students and to bring about the development of curricula to overcome these educational deficiencies. The prevailing objective should be to aid each student in developing his full potential and to provide each with a salable skill so that he will become a contributing member of society.

The Council found several schools that were releasing their students after 1:00 p.m. so as to alleviate overcrowded classrooms. It appeared to the members that the schools should increase their vocational offerings, so that the students would receive at least three hours of additional training and supervision to enrich his human resource capabilities.

In the Council's evaluation of post-secondary programs, it was quite evident that the Alaska community colleges are undergoing a transition stage from traditional junior college programs to actual community programs. Again we would like to recommend that the State staff be increased to include a post-secondary supervisor to assist in this transition.

It has come to the attention of the Council that a number of the schools have not participated in vocationally approved programs because it wasn't administratively expedient. Some progress was made in this direction during fiscal 1970. The Council recommends that the State plan more program development time in the districts that experience scheduling difficulties. This is one of the reasons that earlier in this report the Council recommended a proposal that a unified system of vocational guidance and counseling be developed with Instructional Services. The Council sees this as primarily a selling job of getting secondary school administrators and guidance personnel to offer a realistic program to meet the needs of all students, instead of being just college entrance oriented.

Evaluation of Programs

Local schools should make a more concerned effort in the follow-up of former students. The State staff has taken steps to assist in solving this problem. However, the primary information resource will have to provide the raw data for processing.

The program evaluation conducted by the State staff has been a great assistance to the Council in evaluating the established goals of the State Plan. Local educational agencies should also solicit additional assistance from the Division of Vocational and Adult Education which has available documented research concerning every area of the State as to human resource needs, industrial needs projected to 1980, the twenty-five most needed employment areas, etc. to meet their specific needs.

The Council recommends that the State staff make a continuous self-evaluation with respect to its effectiveness in meeting the changing needs of vocational and adult training.

It was agreed that support should be given to the philosophy that vocational and adult education programs and services provided at the post-secondary level should be the primary responsibility of these institutions rather than of institutions granting the baccalaureate degree.

EMPLOYMENT OPPORTUNITIES

Action taken by the Division of Vocational and Adult Education in initiating the "Manpower Outlook for the 70's" was most commendable. It is a valuable tool not only to educators, but to economic development, Department of Labor, industry economists, and others throughout the State. The research program should be continued and focus upon improvement and refinement of data for future publications.

The local and state educational systems should utilize this information to provide programs to guide young people into areas of high vocational need and to prepare them for the identified job openings in their area and throughout the State.

Public schools must evaluate and follow up the placement of students in order to further justify a training program. If students are not being placed in their area of preparation in a justifiable number, then taxpayers should not be asked to provide the training.

Post-secondary institutions should reflect a broader curriculum to meet the specific needs of industry in all major sections of vocational education. Special consideration should be given to economic projections, and new or emerging technical occupational areas. Enrollments in vocational education have grown steadily since 1965–70 period, along with a corresponding increase of State and Federal leadership. Vocational enrollments indicate a shift to training in the growth occupations which is a strong indication that planning has been carefully following economic projections of the labor market. The planning will need to be continued.

A study should be conducted to determine the feasibility of area vocational centers for our large rural population. These centers should include diagnostic services, extensive guidance, occupational orientation, adult training, and extensive comprehensive vocational and academic education programs. Each rural student is entitled to an equal opportunity for vocational training regardless of his geographical location.

SUGGESTED GUIDELINES

The educational system which is ultimately designed and established in the State of Alaska must provide vocational education K–14 and include continuing skill development programs for adults.

It was further decided that Adult Basic Education, and General Education Development Programs do not meet the needs of drop-out students. A State supported system of adult education needs to be developed which would allow for continuing education based on individual achievement needs.

SPECIFIC CONSIDERATION

a. A statewide system of vocational guidance and counseling must be developed in the near future.

b. A greatly expanded in-service and pre-service teacher education program needs to be developed in order to maintain our high quality of program development.

c. A teacher education program for training vocational school administrators needs to be developed.

d. A greatly expanded post-secondary program needs to be developed to meet the growing needs of our graduating secondary students.

e. All vocational programs must meet the new criteria as outlined in the 1968 Vocational Amendments.

ARIZONA

Chairman—F. R. Vihel
Ex. Director—Rex R. Waite

RECOMMENDATIONS OF THE STATE ADVISORY COUNCIL FOR VOCATIONAL EDUCATION

The quality of education in Arizona is in the hands of the State government—the governor, the legislature, the Superintendent of Public Instruction, and the State Board of Education.

The time has come to find ways of offering a comprehensive program of vocational education in the secondary schools of Arizona.

The State Advisory Council for Vocatonal Educational suggests that State agencies can bring about major innovations in the management objectives of the schools to make educational experience more relevant to the needs of the youth of Arizona.

Effective vocational education is more inclusive than simply training for job skills. It also develops ability, understandings, attitudes, work habits, and appreciations which contribute to a satisfying and productive life.

In view of the above statements, the State Advisory Council for Vocational Education makes the following recommendations:

1. That the State Department of Vocational Education, and the planning and research staff of the Department of Public Instruction work with the Arizona State Employment Service research staff in establishing a universe of need that is tailored to the requirements of communities of the State and defined areas, yet does not lose sight of the patterns emerging in the State and national labor market. It must also reflect the arrival and departure of businesses and industries and the flow of workers to and from the State or area labor markets.

2. Cooperative education programs should be expanded and developed with consideration to the universe of need as recommeded in Item 1. This is comparatively easy to do with a rising economy. Consideration should be given to planning during the declining economy as well as the stabilized economy.

3. That every secondary school develop a world of work orientation and placement program coordinatively with the business and industrial community and the Arizona State Employment Service to assure that trained people are available to meet employment demands. This is needed to help develop an understanding on the part of students of the relationship between academic work and life in the world of work.

4. That the State Department of Vocational Education continue to improve its data gathering system relative to the placement of grad-

uates and also information regarding the retention in employment of graduates in the field in which they received vocational training.

5. That the State Department of Vocational Education continue in its effort to formulate some system toward uniform cost accounting.

6. That the disadvantaged be brought into the mainstream of the vocational education programs with its existing facilities which would eliminate the duplication of effort evident in many programs; concurrently then vocational education programs must strive for more relevancy to meet the changing attitudes of those they are to educate.

7. That available federal funds be used in establishing institutions such as public schools, private schools, and businesses and industries rather than duplicate similar training facilities.

8. That the State Department of Vocational Education, the planning and research staff of the Department of Public Instruction, and the State Office of Manpower Planning conduct a cost comparison survey between the public schools, manpower programs, and private training institutions.

9. That the State Board of Education urge the universities to develop a plan for professional development related to vocational education. It should provide in-service training for those currently employed and a long-range program for increasing leadership capabilities, especially in guidance and counseling patterns.

10. That a public relations program be inaugurated to improve the image of vocational education, expand the philosophy of vocational education, and to attract and retain students to the programs.

11. That, wherever possible, parents be included in the make-up of the membership of committees, advisory councils, boards, etc.

12. The State Department of Vocational Education and the Arizona State Employment Service take steps to contact top management in business and industry relative to cooperative education, services which the departments can provide, and establish a relationship conducive to the acceptance of graduates from vocational training programs.

13. That the State Department of Vocational Education with the Arizona State Employment Service maintain a close liaison with top management of business and industry relative to changing job requirements based on new contracts, retraining of personnel, improved methods of production, and the changing status of the art of the various trades and processes and technology.

14. That existing training facilities be available the year around for vocational education so that graduates become available to meet the needs of business and industry, just as private training institutions do.

15. That the State Board of Education exercise its leadership to establish a definite commitment from secondary schools to expand from the college preparatory to career cluster curricula, so that career preparation management becomes an objective of the secondary schools.

16. That the State Board of Education exercise its leadership at the elementary school level in developing attitudes and orientation toward vocational education. (Suggested reading, the Wyoming Model, which includes a program from kindergarten through the twelfth grade.)

17. That the State Board of Education and the State Department of Vocational Education make a dedicated effort to retain every potential dropout and to reenroll previous dropouts.

18. That the State Department of Vocational Education, the State Board of Education, and the State Advisory Council for Vocational Education maintain continuous surveillance as a means of establishing and continuing quality control in Vocational Education. This becomes very important in consideration of the evaluation of the programs as related to accreditation by appropriate accrediting agencies and the U.S. Office of Education.

The State Advisory Council wishes to direct your attention to the fact that the above recommendations are directed primarily to the administrative functions of existing State agencies rather than to proposed legislation. The Advisory Council will however, at the appropriate time, make suggestions for preparing legislation.

The State Advisory Council believes, as a result of the findings of the First Annual Report, that many vehicles in existing State agencies are not being utilized to the best advantage in the programs, services, and activities of Vocational Education; that better coordination of the existing agencies will help produce a more effective program of Vocational Education; and finally that a working relationship between the State Department of Vocational Education and the State agencies on the one hand, and the business community and industry on the other, is mandatory in order to give full meaning to the program of Vocational Education.

ARKANSAS

Chairman—Daniel H. Woods

A. SUMMARY AND RECOMMENDATIONS

The goals stated in the State Plan for the Administration of Vocational Education in Arkansas meet the requirements set forth in the Vocational Education Amendments of 1968; and, if effectively carried out, would serve the needs of the people of Arkansas. However, the Plan does not adequately provide for meeting several of the stated goals.

First, there are presently too few vocational education opportunities for secondary school students in programs other than vocational agriculture and home economics education. The Department of Education is to be commended, however, in its efforts to update the vocational agricultural programs, to make the homeeconomics programs more relevant to today's needs, and for starting a vocational orientation program.

Second, too much reliance is being placed in the State area vocational-technical schools to make up for the paucity of programs in the public school system. Also, these schools are being located in rural areas of declining population with few job opportunities for graduates. This also discriminates against persons in the more populous areas of the State where the training needs and job opportunities are concentrated. Nevertheless, the present schools do perform a vital role in the State's vocational education program.

Third, vocational teacher training programs in the State's colleges and universities are inadequate to meet the demands of even the present vocational programs in Arkansas. This situation will become even more critical over the five years projected in the Plan.

Finally, a *major* deficiency of the State Plan is the implicit assumption that in areas of high youth unemployment and/or depressed areas the basic cause is structural unemployment, *i.e.*, a mismatch between job vacancies (the kinds of jobs that are vacant and the kinds of workers that are unemployed), and that this situation can be corrected through vocational training programs.

While the Council does not argue that there is *no* mismatch in the labor market in these areas, and that training and educational opportunities are not needed there, an unemployment rate in excess of six or seven percent, and even greater, cannot be a mismatch. There are not that many unemployable people in any economy! Therefore, the problem is simply a *lack* of job opportunities in these areas, with a resultant large labor surplus. The problem is one that can only be solved by moving people to where the job opportunities are, or by creating jobs in those areas—and this is not the role of vocational education. Rather, the role of vocational education is to train people for existing or future job opportunities.

To perform this role adequately, urban areas cannot be ignored. We cannot continually refuse to recognize the fact that Arkansas is now a predominately urban State or the essential role which urbanization must play in the development of our rural areas. Therefore, the major criteria for providing training opportunities must be *job* opportunities. Urban centers such as Jonesboro, Fort Smith, Little Rock-North Little Rock, West Memphis, Fayetteville-Springdale-Rogers, Russellville, Conway, Texarkana, and even smaller communities that are market centers for their areas such as Monticello, Magnolia, Mena, De Queen, Mountain Home, and others must have vocational training facilities. The only economically and educationally feasible method for accomplishing this is through locally run comprehensive high schools with strong afternoon, evening and summer programs for adults and, in the larger communities, adult training centers, *i.e.*, area schools, or community colleges.

The Council realizes that, in the past, the State Constitution prohibited the use of public schools for educating those under 6 or over 21, but that provision has been repealed. Public schools can and should be used for both purposes. Fayetteville High School is a good example; it serves both high school and adult students, as can other public schools if they are properly funded and motivated.

For these reasons, the Council believes that the goals stated will not and cannot be met if the course outlined in the State Plan is followed; therefore, the Council reiterates its recommendations contained in its First Annual Report:

(1) That emphasis on vocational-technical education should be directed to establishing a comprehensive high school program throughout the State.

(2) Additional post-secondary area vocational-technical schools should not be built until the existing ones have expanded their enrollment and curriculum.

(3) The present plan for constructing new schools should be abandoned, and any new post-secondary schools should be built where student needs and job opportunities are the greatest.

(4) Vocational-technical education should expand its cooperative training programs with business and industry and place more emphasis on industry needs.

(5) There is an immediate need for expanding and improving the training of vocational-technical teachers.

CALIFORNIA

Chairman—Dr. Allison J. McNay
Ex. Director—Karl W. Kolb

RECOMMENDATIONS

During the formative period when committees were being organized for work on the items selected by the Council, other actions were taken either by individuals or ad hoc committees which resulted in several recommendations by the Council.

Community Involvement

The Council prepared and forwarded a strong resolution recommending to the State Board of Education and the Board of Governors of the California Community Colleges that they select a group of school and college districts identified with major socioeducational problems, such districts being required to invite community group participation in their annual district plans for vocational education. It further recommended that local minority or ethnic groups, civic leaders, neighborhood groups, representatives of labor, employers and management associations or others beyond existing trade advisory committees be involved to assist in determining that the district plan appropriately meets the commitments of educating the disadvantaged and reducing high rates of youth unemployment and school dropouts.

Legislative Actions

The Council recommended clarification of Assembly Bill 1515, as it concerns Manpower and Development, so as to define the role of the Department of Human Resources Development as one of coordination and contracting for training rather than one of actually providing the training. The Council felt that the latter situation could lead to the establishment of a dual educational system.

The Council expressed its opposition to the principle prescribed in Senate Bill 473, which required that programs, courses, classes or instruction in cosmetology should be initiated or expanded by regional occupational centers, high schools, public junior colleges or state colleges only when the appropriate body (State Board of Education, Board of Governors of Community Colleges, or Board of Trustees of State Colleges) ascertained that a definite need existed. The Council took the view that it is inappropriate for the State or any other entity to usurp the right of local school districts to offer courses considered necessary by the concerned school district.

The Council strongly affirmed its full support of the principles contained in Assembly Bill 1331 which would, in a test school district, provide for individualized instruction and full integration of vocational education with the regular curriculum and urged the State

Board of Education to commit itself to providing the funds required in implementation of this pilot program.

Objective-Oriented Planning

In the process of consulting with staffs of the State Department of Education and the Community Colleges on the State Plan for Vocational Education in 1970–71, the Council analyzed and reported on the plan in detail. The major thrust of the report recommended that the California State Board of Education urge the U.S. Office of Education to revise the requirements stated in the "Guide for the Development of a State Plan for the Administration of Vocational Education under the Vocational Education Amendments of 1968" to utilize objective oriented planning in place of administrative planning. The Council views the State Plan as a contract between the State and the Federal government, rather than a plan for the operation of the State's vocational educational programs. The report also pointed out a number of areas where additional essential information and analysis is required and requested that the State Department of Education staff prepare an addendum containing the specified additions.

Two other projects which were completed by the Council were the December 1969 Analysis of the 1969–70 State Plan for Vocational Education, and the February 1970 review of the literature on Guidance and Counseling. Neither of these produced specific recommendations by the Council, and they were retained for file and future use.

COLORADO

Chairman—Stow L. Witwer
Ex. Secretary—Irwin MacKay

First Annual Evaluation Report of the Colorado State Advisory Council for Vocational Education

The first annual evaluation report of the Colorado State Advisory Council is based on state vocational programs as they relate to state and national goals. The report presents to the State Board comments and recommendations for improving the vocational education program in Colorado.

Four specific problems emerged in the study of the vocational education programs in Colorado by the State Advisory Council. Priority recommendations based on these problems are submitted to the State Board for consideration:

Problem One.—The Advisory Council is increasingly concerned over the lack of effective and meaningful vocational guidance and counseling for the youth in Colorado. There is a dire need for occupational guidance and counseling to aid the youth in matching their interests and capabilities with opportunities in the world of work.

Recommendation.—School administrators must take immediate steps to initiate and implement occupational guidance programs in the schools throughout the State of Colorado. The advice and counsel of parents, teachers and employers must be utilized in planning and developing vocational guidance programs. Meaningful programs of occupational orientation could begin in grade one, but must be initiated no later than grade seven (junior high). Vocational guidance and counseling services are also essential for high school students. All guidance counselors must become more occupationally minded through special training programs and/or work experience programs if they are to make an effective contribution to the total educational experiences of our youth.

Problem Two.—The image of vocational education, while perhaps improving, still has the stigma attached to it of being for "somebody else's children." Such an image results from a lack of information or from misinformation about vocational education programs.

Recommendation.—An honest, objective and factual information picture of vocational education must be continuously presented. Knowledge about vocational education is a key to understanding. Effective public information programs about opportunities in the world of work and about accomplishments of students in vocational education programs can aid in improving the image of vocational education. Parents, students, and the general public must be kept informed of the value of vocational education programs through press releases, orientation programs, civic programs, and special school activities.

Problem Three.—The Advisory Council is concerned that traditional methods of motivating and instructing youth of disadvantaged groups have not worked. These students leave school without sufficient education to obtain and/or advance in a job. As a result, they are unemployed or underemployed for many years. Re-entry into regular school programs often does not produce the desired results.

Recommendation.—Enrollment of the socio-economically and culturally disadvantaged persons and of the handicapped persons in vocational education programs should be strongly encouraged. Special projects such as work study and work incentive programs should be further developed since many persons will be more interested in the school situation if it is combined with work. Disadvantaged and handicapped individuals should be pictured in educational brochures and news releases, and, when qualified, employed as members of the staffs and faculties. Members of these groups can then see definite proof that there is a chance to participate and to strive for equal goals.

Problem Four.—Information about program efficiency and effectiveness is needed by policy-making bodies. Too often, such information is present in vague, meaningless terms or is not available. This implies that specific objectives and goals of vocational education programs are vague, meaningless, and immeasurable. Much of the available information does not give facts and figures about results or outcomes of vocational education programs.

Recommendation.—Clear, concise, and measurable objectives and goals based on student needs for employment must be formulated for vocational education programs. Continuous evaluation of the vocational education programs in terms of specific objectives and goals is imperative. Evaluation must involve parents and employers of students from vocational education programs. Evaluation must include follow-up of graduates and dropouts of vocational education programs. Evaluative information must then be used in program development and improvement. This information will provide policy-making bodies with needed information about program efficiency and effectiveness to aid in the adjustment of available resources and in future planning.

SUMMARY

The Colorado State Advisory Council's recommendations are based upon the goals and accomplishments of vocational education for 1969-70. The recommendations encompass four general areas which need to be studied for improvement:

1. Vocational education guidance and counseling programs.
2. Programs for the disadvantaged and handicapped.
3. Program efficiency and effectiveness.
4. Public information programs.

Though considerable improvement and growth is needed in the above-mentioned categories, some bright spots about vocational education in Colorado are worthy of mention:

1. A dramatic new thrust for secondary level vocational education programs in the State has been brought about by new State legislation during 1970.

2. Expanding post-secondary vocational education programs are resulting from the State system of community colleges and

the State legislation in 1969 for vocational education in the local junior colleges.

3. Increased emphasis has been placed on the development of more programs to serve the disadvantaged and handicapped.

4. Vocational program enrollments in the State increased 30 per cent during the past three years.

The staff of the State Division of Occupational Education has been reorganized during 1970. The new structure places more emphasis on planning, development, and evaluation of vocational programs. This, coupled with increased funds, and more effective leadership, should provide the foundation for continued improvement of vocational education programs in Colorado.

CONNECTICUT

Chairman—Fellows Douglas

RECOMMENDATIONS

STATE-WIDE PLANNING

Information about job opportunities which must be supplied by the State Department of Labor needs to be complete and accurate. The close working relationship which has been established between Department of Labor and Department of Education is resulting in a constantly improved supply of information for planning additional vocational education programs.

To assist in planning vocational education programs, the Division of Vocational Education should maintain close cooperation with business and industrial development groups, state and regional planning agencies, as well as interested individuals.

IMPLEMENTATION OF PROGRAM PLANS

The allocation of state and Federal financial resources necessitates decision making in the Division of Vocational Education which would be assisted by a "systems approach" (program planning and budgeting system).

The Connecticut economy demands a variety of technicians and highly skilled persons in all fields. The appropriate boards of trustees and college administrations should be encouraged to establish vocational education programs to meet these needs.

High school and vocational-technical school students in vocational education programs should have the opportunity to elect courses which will assist them to enroll in advanced vocational education programs at the college level. Special recognition is given to the pre-technical courses conducted by the technical colleges which assist incoming students to strengthen their mathematics and science backgrounds.

Exploratory programs of the type found in the vocational-technical schools provide experiences which assist in making valid occupational choices. Occupational exploratory programs in the middle school grades and in the high schools should be developed further to assist students in selecting careers.

The steps taken to maintain a close working relationship between the vocational-technical schools, local joint apprenticeship committees and the Connecticut State Apprenticeship Council should be continued. Appropriate recognition should be given by the employer or joint apprenticeship committee for training completed in the vocational-technical school.

The steps which have been taken in the major cities to involve local school administrators in joint planning for occupational training and counseling are commendable.

Communications between the vocational-technical school administration and local district administration should be strengthened to ensure a greater articulation in planning new programs and for the counseling of students desiring vocational education.

The vocational-technical schools are operated under State Board of Education policy and procedures which provide desirable operating standards. This coordinated administration should give emphasis to (a) a state-wide plan for the development programs for out-of-school youth, (b) an opportunity for counseling personnel to enroll in in-service workships to develop sensitivity to the problems of students which may tend to lower the drop-out rate, (c) facilities and services for the education and training of the disadvantaged be given high priority in all future planning.

The citizens consulting committees of the vocational-technical schools and advisory committees in local school districts should be reactivated in cases where they are not meeting regularly. The State Advisory Council, in discharging its responsibility for an annual evaluation, will be guided by the minutes of the advisory committee meetings which are held.

OCCUPATIONAL GUIDANCE AND COUNSELING

In order to provide students at all grade levels with occupational information and guidance, programs should be initiated to (a) acquaint all students with the world of work in grades 1–6, (b) disseminate occupational information and provide real experiences in occupations in grades 7–9, (c) assure that teachers and counselors in all grades give fair representation to occupational programs as well as academic programs.

The institutions and professional associations responsible for the education of vocational guidance and counseling personnel should strengthen programs for (a) counselors and teachers so that they may work cooperatively on programs of occupational information, (b) make available the Occupational Handbook and Occupational Outlook and other sources of occupational information, (c) improve counselor performance, (d) encourage wider use of results of national conferences, seminars, and studies related to vocational guidance.

The load carried by school counselors should meet American Personnel and Guidance Association standards with recognition given to lowering the ratio in selective situations.

MAINTAINING QUALITY PROGRAMS

The Division of Vocational Education should prepare standards for equipment replacement and facility maintenance and renovation which are the basis for budget requests in state and local schools and programs.

Elective courses should be made available to meet the needs of the students in all schools offering vocational educational programs.

Programs and teaching techniques should be continually evaluated in order to maintain quality in vocational programs.

Emphasis should be put on innovative and creative programs at all educational levels.

ORGANIZATION FOR STATE ADMINISTRATION

The Division of Vocational Education should be adequately staffed to carry out its responsibilities and restructured according to its functions.

TEACHER EDUCATION AND LEADERSHIP DEVELOPMENT

The teacher-preparing institutions should provide background courses in vocational education for general education teachers and general school administrators.

A formal leadership program for teachers such as initiated by Education Professional Development Act should be expanded and potential leaders identified.

School personnel should be encouraged and assisted to maintain their professional development. In-service workshops, technical refresher courses and other effective means should be made available.

SPECIAL PROGRAMS AND SERVICES FOR THE DISADVANTAGED

Pre-vocational and vocational education programs for the disadvantaged should be made available which are consistent with the motives and capabilities of each individual. There is a need for programs which will make it possible for such persons to compete favorably for jobs despite the problems of defeat which maybe caused by conditions such as: broken homes, unemployment of the father, congested home conditions, poverty, individual defeat and all of the conditions which keep the individual from developing his full potential. Special programs should provide motivation, development, education, and be followed up to assure that the individual's achievement will provide financial rewards and personal satisfaction. Business, industry, and organized labor should identify entry jobs and in addition provide for advancement. Efforts to initiate such vocational education programs and services would provide a beginning of an on-going commitment to develop opportunities for all members of our society.

There is a need for pre-vocational programs for members of the minority groups. Such programs need to be of a duration according to the needs of the students. These programs must help these students achieve tangible short term goals while helping them in long range goals. Members of the disadvantaged groups must participate in the programs and participate in the formulation of policy.

Admission procedures should be tailored to the needs of minority group students.

DELAWARE

Chairman—Mrs. Louise Bachman, Sr.
Ex. Secretary—George McGorman

THE DELAWARE ADVISORY COUNCIL ON VOCATIONAL EDUCATION RECOMMENDS:

I. that the Governor of Delaware designate, with all practical expedience, a specific agent with responsibility and accountability for the development of a comprehensive State Plan for the Development of Human Resources; that this agent have commensurate authority to require that all organizations in the State utilizing public funds for manpower training and vocational education programs participate and contribute to the development of this Plan; that the Plan include current, valid and reliable data pertaining to employment needs and opportunities in the community as well as specific identification of persons who are unemployed, underemployed and are available for full-time or part-time training or retraining; that the Plan define levels of training necessary to meet the human and employment needs of the community and that it fix specific responsibility, authority, and accountability upon specific institutions, organizations and individuals for establishing and implementing such programs; that the Plan establish measurable short range and long range objectives; that it set forth a definite plan of action to meet those objectives and; that it provide a definite program of continuing evaluation. All existing State Plans for vocational education, manpower development, job training and retraining, etc., should become smaller integral parts of the State Plan for the Development of Human Resources; this comprehensive plan should address itself to the specific needs outlined in Section V of this report;

II. that the Occupational Research Coordinating Unit, currently assigned to the Department of Public Instruction, be reorganized under the authority of the agent designated above; that the primary responsibility of the unit be to collect, coordinate and disseminate data necessary among all institutions, organizations, and individuals in the State that participate in the development and implementation of the State Plan for the Development of Human Resources;

III. that appropriate legislation be developed and enacted to provide one employment placement counselor for each 500 students in grades 7–12; that the primary responsibility of such counsellors be to provide part-time and full-time employment services for currently enrolled students and students who have completed or left high school within the past three years;

IV. that the State Board of Education develop and implement a program of inservice education extending beyond not more than five years to acquaint, familiarize and involve all teachers, guidance counselors, librarians and school administrators in the State with information and methodology necessary to incorporate occupational-vocational exploration into the regular curricula of the schools; that the State Board incorporate sufficient incentives such as reimbursement of additional costs to local districts, salary increments and graduate credit for participants to insure acceptance of the program;

V. that the Department of Public Instruction be primarily responsible for the coordination, supervision and evaluation of occupational-vocational education needs at elementary and secondary grade levels with authority to arrange for services with other institutions, organizations and individuals when it is decided that such services can be rendered more effectively and efficiently by such arrangement; that Delaware Technical and Community College be primarily responsible for coordination, supervision and evaluation of postsecondary, continuing and adult occupational, technical, and vocational education needs with the same authority to arrange services as efficiency and effectiveness dictate;

VI. that the State Board of Education and the State Department of Public Instruction take more active interest in the vocational educational needs of the dropout, the disadvantaged and the handicapped; that a task force be designated with specific responsibility, authority and accountability to follow-up on such persons, provide counselling for them, refer them to existing programs in the mainstream of education and/or develop and implement special programs as necessary;

VII. that the Council of College Presidents take immediate action on the recommendations of the Ad Hoc Committee on Occupational Education to implement a coordinated program of teacher training in vocational education; that the Council alert the Governor and the Legislature concerning necessary legislation and appropriation to implement this program; and that top priority be given to fill this serious void in the State by all responsible parties;

VIII. that, under provisions of current legislation, or if necessary, by the support of additional legislation, the State Board of Education approve and endorse a program to establish vocational youth organizations in each school district in the State;

IX. that vocational units may be approved for each district to provide local advisors to develop, coordinate and supervise programs of youth activities that are integral to vocational programs as advertised in the State Plan;

X. that policy concerning travel, expenses and secretarial services for State Advisors of Vocational Youth Organizations be adjusted commensurate with responsibility;

XI. that the administrators of the area vocational-technical districts and the Department of Public Instruction develop plans for the systematic retirement, repair and replacement of worn, damaged and obsolete equipment; that such plans serve as the basis for the addition of "Division Four" to vocational unit allocations; and that prior to retirement or replacement, plans provide for maximum utilization of equipment and facilities by extending programs beyond normal school hours, days and months of the year;

XII. that the Governor of Delaware, in making appointments to policy-making bodies, councils and task forces in education, continue and expand consideration of the consumers, particularly students and parents, in the decision-making process that affects them;

XIII. that the Governor and the State Board examine all possibilities of the establishment of residential vocational schools in Delaware to serve the needs of disadvantaged urban and rural youth, including those in penal institutions, to create an environment more conducive to the learning, socialization and rehabilitation of such individuals;

XIV. that the public press and other media give more relative and proportionate attention to the success of individuals, organizations and educational programs in developing citizens with skills that enable them to participate in and contribute to the highest standards of living in the history of civilization;

XV. that the citizens of Delaware continue to accept every opportunity to improve their educational system by service on appointed or elected boards, councils and task forces, by attendance and participation at public meetings, school board meetings and educational conferences, and by support of elected public officials that demonstrate interest and action in educational development.

DISTRICT OF COLUMBIA

Chairman—Dr. Francis A. Gregory
Ex. Director—Mrs. Lillie F. Sampson

BASIC FINDINGS AND RECOMMENDATIONS

Finding 1

It is the Council's view that too low a priority continues to be placed on District of Columbia Public School programs aimed at preparing youth for the world of work. This is reflected in a generally static and sub-standard status of plant and equipment for vocational education, limited operating funds, and lack of prestige. The following tabulation shows that the increase in District operating funds from 1964 to 1970 has not matched the rapid rise in Federal Funds under the provision of the 1963 and 1968 Amendments.

OPERATING FUNDS BY SOURCE FOR VOCATIONAL EDUCATION 1963–70 DISTRICT OF COLUMBIA PUBLIC SCHOOLS[1]

Year	District of Columbia	Federal	Total
1963–64	607, 225. 56	128, 364. 00	735, 589. 56
1964–65	798, 689. 08	545, 858. 06	1, 344, 547. 14
1965–66	903, 448. 66	735, 910. 33	1, 639, 358. 99
1966–67	1, 228, 635. 68	790, 762. 12	2, 019, 397. 80
1967–68	1, 585, 557. 39	791, 966. 80	2, 357, 324. 19
1968–69	1, 961, 872. 19	769, 427. 00	2, 731, 299. 19
1969–70	2, 408, 239. 00	1, 255, 736. 00	3, 663, 975. 00

[1] Financial statement of Federal funds for vocational education (OE form 4042, 2/69).

In FY 1963–64, the matching ratio between District and Federal funds for operation was almost 5 to 1. In FY 1970, it was somewhat less than 2 to 1. Nationally in FY 1970, the ratio was approximately 5 to 1. It was the expectation of Congress that increased Federal Funds would generate a corresponding increase in matching funds in the jurisdictions. Even recognizing the fiscal problems unique to the District of Columbia, the Council fails to see any vigorous pursuit of this goal by the Board of Education or the District of Columbia Government.

The Council would point out that out of total appropriations of $19,174,320 for identifiable capital improvement in the senior-level high schools of Washington, only $102,980—or one half of 1%—was for vocational schools in the ten year period from FY 1960 through FY 1969. For seven of those ten years, *no* funds were appropriated for capital improvements in the vocational schools.[1]

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[1] Source: D.C. Government, Department of General Services by way of the division of Planning, Research, and Evaluation. D.C. Public Schools.

Recommendation 1

The Council recommends that the Board of Education (1) reassess its priorities for program development to assure adequate resources for early implementation of the Career Development Program, and (2) actively seek substantial increases in operating funds and in funds for capital improvement for vocational education (career development).

Finding 2

The Council holds the conviction that one of the most significant influences in bringing order and direction to the life of a person and of a community is the quest for and achievement of an occupational goal. Furthermore, it believes that in satisfying the dominant urge for economic security in a field matching his interests and aptitudes, a student will find relevance and success in other disciplines, such as reading or mathematics, that are essential for his success. Opportunities for such career-oriented educational experiences should serve to retain, until graduation from high school, a good portion of the thousands who drop out each year, especially between the 10th and 11th grades. The Council feels that the present pace of implementation of the Career Development Program is too slow for a community that cannot afford to wait.

In particular, the Council considers (a) the beginning in the Spingarn area too small and (b) the proposal that students who have spent a full day in a general high school attend Phelps Vocational High School after hours ill conceived. Students should not have to "moonlight" to pursue their career objectives.

Recommendation 2

(*a*) The Council recommends that implementation of the Career Development Plan be greatly accelerated and that it be progressively researched as it is developed with appropriate modifications as its effectiveness is monitored and evaluated.

(*b*) It is recommended that, rather than waiting out the period (5 to 7 years) required for acquisition of sites and new construction, existing industrial-type space (former warehouse, chain store, etc.) be sought on either a purchase or rental basis to permit establishing skill centers accessible to the general secondary schools. The Council points out that more space will be required than exists in the five present vocational high school buildings even if the decision were reached to convert them totally to skill centers.

(*c*) It is recommended that funds be sought to remodel, renovate, equip and staff these skill centers at the earliest possible date.

(*d*) It is recommended that the utilization of existing industrial arts, home economics and business education facilities in the 40 junior and senior high schools be reviewed for possible help in meeting the space and equipment problem.

(*e*) It is further recommended that the existing five vocational high schools not be phased out as independent institutions until: (1) respectable surveys and projections of manpower requirements can be secured; (2) it may be determined that they will not be needed for certain specialized programs, particularly those that would be too expensive to replicate in the new skill centers; and (3) it is assured that an equivalent *integrated* educational experience is available under the Career Development Plan. Such program research as this should be gotten under way without delay, utilizing funds for this purpose provided by the Vocational Amendments of 1968.

(*f*) It is recommended that this total task of planning and development be carried out under the immediate direction of a duly-appointed Assistant Superintendent for Vocational Education (or Career Development).

Finding 3

The Council finds the present organizational structure for implementation of the Career Development Program illogical, inefficient, and ineffective. To wit, (1) in spite of the natural interconnections between industrial arts and specialized skill training, they operate under different departments (likewise for general home economics and general business); (2) the most significant and promising innovation ever to appear, the Career Development Plan, financed with vocational education funds, under the Exemplary Programs Title, is being planned and administered under an office other than that of the State Director; and (3) it is not apparent that any professional vocational education personnel have participated in the Spingarn Project, the first significant step taken to implement the Career Development Program.

It is unfortunate that through legislative history and administrative decision (particularly by general school officers) the term "vocational education" has acquired a narrow connotation. Properly read, it is as broad as "career development" and denotes all the supporting experiences such as general educational development, exploration, guidance, selection, placement, follow-up, etc. It is not unreasonable to believe that those most knowledgeable about and sensitive to the systems approach to selection and achievement of career goals are those who have been working at it successfully, in spite of restrictions and obscurity imposed by reluctant gate-keepers.

Recommendation 3

(*a*) The Council recommends that all programs in industrial arts, home economics, and office and distributive education be placed under the office of the State Director of Vocational Education.

(*b*) It recommends that under the general direction and supervision of the Chief State School Officer (Superintendent of Schools), the executive officer for the implementation of the Career Development Program be the State Director of Vocational Education (present title, Acting Assistant Superintendent for Vocational Education), who should have assigned to his team for planning and implementing the changes called for in the Career Development Program, key personnel from the other levels and areas of the system concerned with the evolution.

(*c*) It is further recommended that the State Director of Vocational Education be the project officer for all grants and contracts using funds appropriated under the Vocational Education Acts, such as that for teacher training with the Washington Technical Institute.

Finding 4

The Council feels that prejudice against education programs that prepare for other than college entrance is strong in the communities of Washington. It feels further that the "aristocracy of the professions" is a concept supported by general school personnel at all levels who deny academic respectability to specialized secondary-level programs aimed at preparation for work. This prejudice is at work in the feeder schools at the lower secondary level (junior high schools) in which students are guided away from vocational education. It is at work in the elementary schools where academically-oriented teaching personnel and absence of appropriate curriculum content help to establish values which occlude any fair view of the total spectrum of the world of work. The Council commends the efforts to effect change in the attitude and behavior of general school personnel toward full-option career development being evidenced in the Spingarn Project. However, it feels that an immediate broader approach is imperative.

Recommendation 4

(*a*) The Council recommends that staff-development activities related to implementation of the Career Development Program, be expanded as soon as possible to embrace all school personnel; and suggests that one effective approach is the involvement of school teachers and officers in the planning of programs that face the realities of the labor market and the occupational destinies of the people.

(*b*) The Council recommends further that the public-relations efforts of the school system carry a strong and sustained component directed toward changing the attitude of the public in general, and parents and students in particular, toward the world of work and toward educational programs that prepare for advantageous entry thereinto. In this effort, industry and commerce will be useful allies.

Finding 5

The Council recognizes the value of the preliminary steps being taken to base the offerings of an expanded career development program on future work opportunities through curricula organized in occupational clusters.

Recommendation 5

(*a*) The Council recommends that careful planning, based on the most valid manpower projections, be undertaken, utilizing: (1) the resources of the District of Columbia Manpower Administration; (2) the most knowledgeable personnel within the school system; (3) such outside consultants and contractors as may be needed; and (4) the accumulated intelligence of employers and organized labor in selecting and organizing content.

(*b*) The Council recommends that the cluster design be entered into carefully, taking advantage of successes and failures elsewhere, and researching pilot efforts in the D.C. Public Schools as they are developed. Over-generalization is as much to be guarded against as over-specialization. The cooperation of business and industry in curriculum development will be invaluable.

(*c*) The Council recommends that the deployment of curricula offerings among the network of skill centers be planned with equal care, so that poor accessibility may not deny a student the opportunity to select a program; and so that "blocks-of-time" scheduling between home-school and skill-center may not produce regression because of interruptions in the learning process.

(*d*) The Council recommends that particular attention be paid to the development of vocational education programs for women, who represent a vast under-utilized resource, especially in disadvantaged communities.

Finding 6

The Council finds the vocational education offerings in the D.C. Public Schools largely institutional and school-centered. Experience with recent innovative programs in human-resources development indicates that flexibility in location, scheduling, methodology, and design promotes effectiveness in reaching greater numbers of people with varying needs and interests.

Recommendation 6

The Council recommends that outreach be promoted in vocational education programs through greater development of alternate designs including cooperative part-time programs, on-the-job training, community-based programs, easy-access learning laboratories and the like.

Finding 7

The Council finds little or no communication or joint planning among the governances of the several public agencies and institutions providing programs in career development in the District of Columbia. In particular, the D.C. Public Schools, the D.C. Teachers College, Washington Technical Institute, and the Federal City College appear to be unilaterally developing their own programs, with no coordination to guard against gaps, unwise duplications, and other inefficiencies.

Recommendation 7

The Council recommends that the Board of Education assume the leadership in establishing an inter-institutional planning and coordinating council to promote cooperation and reinforcement among these institutions (and possibly others), in order that the public may benefit from the most efficient and effective sharing of a complete range of offerings for career preparation.

FLORIDA

Chairman—Walter H. Clausen
Ex. Secretary—Bruce Hovell

RECOMMENDATIONS

INTRODUCTION

The goals as stated herein have been extracted from the suggested evaluation goals contained in "Recommendations Regarding Vocational Education Evaluation by State Advisory Councils" as adopted by the National Advisory Council on May 1, 1970, and transmitted by memorandum from Grant Venn, Office of Education, on June 19, 1970.

These recommendations represent some in-depth studies of limited aspects of each goal with some overviews. The list includes only recommendations for improvement and does not reflect the many worthy achievements that have been accomplished. Many recommendations are concerned with programs that are either already under study, or being planned or implemented, and these recommendations are intended to stimulate or support the efforts of the state.

GOAL 1—TO EVALUATE THE EFFECTIVENESS OF THE STATE'S FEDERALLY-ASSISTED PROGRAMS, SERVICES AND ACTIVITIES IN MEETING THE STATE GOALS AND PRIORIES SET FORTH IN THE STATE PLAN

A major limiting factor for this year's report was the difficulty in obtaining timely, definitive, and quantitative data. Improvements in the information system of the Division of Vocational, Technical and Adult Education will permit more quantitative analyses for the FY 1971 report.

Recommendations: Goal 1

A. Effectiveness of Programs

1. Cost-effectiveness studies are needed as a basis for evaluation of programs. The Council strongly recommends that cost-effectiveness studies be made to plan, organize, and finance the *total* program for the most *effective instruction* in *all phases* of education.

(*a*) It does not necessarily follow that an educational program with a lesser degree of monetary utility than another should be assigned a lower resource allocation. Further studies of the more subjective aspects of program utility need to be considered in order to develop meaningful measures of these subjective aspects. These measures are needed to minimize the value judgments program evaluators and planners need to make.

(*b*) Many program utility aspects will not be refined to the point of being quantified precisely and, thus, value judgments should continue to remain as a necessary part of the decision-making process.

(c) It is essential to define and organize relevant information about educational programs—data concerning students and failure rates, staff, course schedules, facilities, equipment, and expenditures—in order to perform cost-effectiveness analyses. All records and reporting of these data need to be kept in computer-readable form and incorporated in a computer-based educational information system at a local or regional level.

2. The Council recommends that raw data on completions not be used alone on the annual federal reports as they are not significant. An adjusted percentage calculated by dividing completions by *initial enrollments in established programs* would be more meaningful.

3. The Council recommends that standard criteria for the evaluation of programs for the disadvantaged be developed and used as a basis for evaluating the effectiveness of such programs.

4. The Council recommends that standardized methods to assess change in students in both the cognitive and attitudinal areas of vocational-technical education be developed by the State Department of Education. A survey of test instruments needs to be made and evaluated in terms of their validity and appropriateness for assessing these changes.

B. Total Management Information System

1. The Council recommends that the continued development and introduction of a total management information system for VTAE be given the highest possible priority.

C. Staff and Faculty Development

1. The Council recommends that the State Department of Education continue to expand programs of salary continuation during selected periodic work experiences in industry, which are being developed by several counties independently.

2. The Council recommends that counselors be exposed to work world through academic and experimental methods. The requirements for certification should include work experience other than or in addition to teaching experience.

3. The Council recommends that prospective vocational educators be introduced to the latest media, including the computer, and their potential for aiding in making funds available for visiting successful programs.

4. The Council recommends that the State Department of Education improve the effectiveness of its services in diffusing information of innovative methods and techniques.

5. The Council recommends that more funds be made available to allow district school systems in the state of Florida to acquire "within school assistance" for vocational programs. This assistance might be in the form of hiring a consultant, securing a fulltime employee, soliciting university help, and so forth. The above are necessary if innovations are to be implemented effectively, and properly monitored and evaluated.

6. The Council recommends that creative and aggressive programs of resource center (library and audio visual) service be encouraged

and supported. Continuing attention should be given to their needs so that they may meet adequately the expanding demands placed upon them.

D. Facilities

1. The Council recognizes that, at present, existing facilities and funding for new facilities will not meet the training needs of the 60 to 80 per cent of the students who should be involved in vocational programs. Additionally, improved recruitment and guidance will create impacted conditions. The Council recommends that long-term funding plans be developed to meet these needs.

2. The Council recommends that current use of mobile counseling units directed toward attracting disadvantaged and handicapped persons into vocational training programs be evaluated to determine feasibility for expansion.

3. The Council recognizes the need for a more specific definition of the role of the school counselor. Completion of a list of behavioral objectives for each school counselor would give the needed direction to the guidance efforts. This also would serve to inform supervisory personnel of the programs and goals of the guidance department at the individual counselor's level.

4. Since many mothers work during the day and most fathers are not able to be involved during their working hours, the Council recommends that special counseling programs be devised to reach ghetto families in their environment.

GOAL 2—TO EVALUATE VARIOUS STATE AND REGIONAL, PUBLIC AND PRIVATE PROGRAMS AS TO HOW THEY FUNCTION AND HOW VOCATIONAL EDUCATION FITS INTO THE TOTAL PROGRAM FOR HUMAN RESOURCES DEVELOPMENT—WITH REFERENCE TO DUPLICATION, COORDINATION, AND/OR COMPETITION

This year's report deals almost exclusively with public, State-operated programs. Adequate data on federal and private programs were not available at the time this report was completed, however, these sectors will be considered in the report for FY 1971.

Recommendations: Goal 2

A. Information Sharing

1. The Council recognizes the need for effective use of interagency committees at both federal and state levels to share information, particularly in the areas of manpower requirements and follow-up of graduates.

2. The Council recommends that cooperation and exchange of information for faculty development be fostered among institutions and school districts offering vocational technical education.

3. The Council recommends the development of a systematic program for identifying local, state, regional, and national work experience opportunities that will provide suitable upgrading experiences for vocational-technical education. As an interim measure, the Council recommends that the exchange of available information be promoted.

B. Articulation, Cooperation, Standardization

1. The Council recommends that the position of Assistant Commissioner for Vocational Education be reestablished and a qualified per-

son hired in order to assure proper articulation, cooperation, and coordination of all vocational education programs in Florida.

2. To encourage articulation between area vocational-technical center programs and junior college vocational-technical programs which exist in the district, the Council recommends that local coordinating boards be established. Representing both public and institutional interests, such boards could play an effective role in precluding the duplication of similar facilities within commuting distance of each other.

3. The Council recommends that a study on standardization of those prerequisites for admission deemed to be essential be instituted cooperatively by the institutions concerned.

4. The Council recommends that communication be opened between the area vocational-technical centers and the local community junior colleges so that articulation may be developed between the vocational programs.

5. The Council recommends that a major recruitment drive, conducted at local level and promoted and planned on a statewide basis, be undertaken to increase the enrollment of minority groups in vocational education courses. Use should be made of mass media, special experimental programs, and specialized personnel. Where possible, established communications channels within the minority community should be used.

6. The Council recommends that priority be given to accelerating the development and implementation of programs that would improve the employment opportunities of migrant workers.

C. Outreach

1. The Council recommends that some specific activities of the Department of Education, the Department of Commerce, and the Department of Health and Rehabilitative Services might be:

   (*a*) To coordinate a combined statewide and local campaign to encourage employers to hire in specific or related jobs for which they have trained, the disadvantaged, the handicapped, people with police records, and people with bad debts, who are recommended by their vocational educators.

   (*b*) To initiate a statewide campaign to encourage employers to register all job vacancies with the state employment service so that various manpower agencies—including the State Department of Education—are provided meaningful and relevant data concerning manpower needs.

2. The Council recommends that tasks of advisory craft committees be defined so as to include the determination of community occupational needs, a description of competencies required, and an evaluation of the performance of graduates.

GOAL 3—TO EVALUATE THE EFFECTS THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 HAD UPON THE STATE POLICIES AND THEIR ADMINISTRATION AS THEY WERE EMPLOYED TO CARRY OUT THE MANDATES OF THE ACT IN THE YEAR UNDER REVIEW

The implementation of programs was spurred almost immediately by the 1968 amendments. The passing of legislation and the formal adoption of policies followed closely but with due study and deliberation; they present great promise. However, time has not permitted their effectiveness to be tested and so they are presented in this report in brief.

A. Extensive comprehensive legislation was enacted by the State Legislature in this year; therefore, the Council recognizes the need for continued emphasis by the State Legislature to support and foster the effectiveness of Florida's programs in vocational-technical education.

B. The Council recommends that cost codes, to be developed under provisions of House Bill 3950, be made compatible with skill classifications resulting from a standardization of the State Accreditor, the HEW taxonomy and the DOT. Vocational training is organized by basic skills rather than by industry, therefore the same basic skills may be listed under different job titles in different industries. Therefore, to plan for future requirements, basic skill classifications are needed.

C. The procedure utilized by the Department of Education of regular review and revision of policies and priorities for educational planning is commendable and the Council recommends that this procedure be continued.

GOAL 4—TO EVALUATE THE EFFECTIVENESS WITH WHICH THE PEOPLE AND THEIR NEEDS ARE SERVED

The needs of the people were viewed from their broader aspects. A basic question was: "Are the programs providing opportunities for socio-economic mobility, and what, if any, are the deterrent factors?" This question goes beyond the simpler one of "Are job skills provided for all who desire them?" The latter question primarily is quantitative; the first question is qualitative. The qualitative aspects received the greater stress in this report.

Recommendations: Goal 4

A. Improvement of Instruction and Instructional Programs

1. The Council recognizes the need for occupational preparation and training profiles.

2. The philosophy of adapting the teaching methodology to the child, as is being tested in exemplary programs on a pilot basis, appears to be valuable and the Council recommends that further testing and evaluation be conducted.

3. The Council recommends that the State Department of Education give priority to continuing the development of guidelines (curriculum guides) to assist schools in the development of measurable objectives in vocational-technical education. State and national leadership is needed to establish a means of systematically updating these measurable objectives.

4. The Council recommends the development of systematic procedures for obtaining follow-up information from graduates, non-graduates, and employers concerning the adequacy of the vocational-technical education programs. Information should be organized by occupational skill so that it may be utilized for the improvement of instruction and faculty development programs.

B. Organization and Structure

1. The Council recommends that occupational programs be restructured into sequential levels—sometimes referred to as "laddering." Students should be permitted to enter at any appropriate level and to exit with a certificate at each level completed. These sequences should lead to technical or professional levels where appropriate.

2. The Council recognizes the need for work-oriented programs for all students. In view of the fact that half of Florida's youth does not continue to higher education, the secondary schools *in combination with the post secondary institutions* should offer more work-oriented education.

3. The Council recommends that the concept of "Educational Parks" instead of single isolated schools be investigated. Programs of vocational instruction, especially, may be enriched and expanded to afford a wide choice of educational opportunities for the students. These new programs (with heavy emphasis on vocational preparation) should be developed as an *integral part* of the *total* education.

C. Facilities

1. The Council recognizes the need for a study to determine the priorities that should be given to support facilities such as libraries, student centers, food service areas, and administrative spaces in future capital outlay programs for vocational-technical education centers.

2. The Council recommends that output related criteria be developed whenever possible as a means for long range facilities development planning and for periodically assessing the performance of activities and equipment.

3. The Council recommends that studies be conducted to determine ways to gain fuller utilization of area vocational-technical education facilities during the summer months.

D. Admissions and Recruitment

1. The Council recommends that each institution in the Florida Community College System conduct a self study to reappraise its philosophy of purpose and then evaluate its admission policies to see if they properly reflect its philosophy. A study of the catalogue would then be in order to determine if the catalogue fairly represents the philosophy and policies of the institution.

2. The Council recommends that institutions offering VTE programs examine all prerequisites for admission to ensure that they are appropriate to the skills to be acquired.

E. Decision Making

1. In order to make more rational decisions, vocational educators must have cost data for all elements of their program. The collection of this data need not await implementation of sophisticated data processing systems. While PPBS may be the ultimate objective, cost data can be collected in a program budget format without installation of PPBS. The Council recommends that data from the present financial records system be reconstructed in a program element format and such costing procedures as depreciation be used to establish cost data for all courses.

2. The Council recommends the cost benefit study approach to selecting vocational programs to those counties desiring to expand

their economic base and whose vocational programs are minimal or subminimal to their plans.

GOAL 5—TO EVALUATE THE EMPLOYMENT OPPORTUNITIES WITHIN THE STATE AND THE VOCATIONAL EDUCATION SERVICES PROVIDED TO MEET THESE OPPORTUNITIES

The growing need for information, as stressed in these reports, is largely a function of centralized planning. At the local level, the non-scientific sources of communication, i.e., faculty and staff contacts with industry and advice from committee and council members, have apparent validity. While for practical purposes follow-up studies are nonexistent, other factors may be judged. Reports of successful placement programs by individual instructors as well as by placement staff, the low rate of course completions and the low rate of unemployment statewide verify the success of the planning effort.

In broad terms, the problem is not so much that programs need to be balanced, that is, overproduction in certain areas; the problem is to raise the skill levels, particularly of the non-skilled and unemployed, and to increase and improve the work force through additional training.

A few areas of the state have taken the lead in expanding opportunities for minority groups. As the utilization of this source of skilled labor improves throughout the state, the quality of the labor force will improve and the quality of life throughout the state likewise will improve.

Recommendations: Goal 5

A. Manpower and Instructional Programs

1. The Council recommends a longitudinal study in order to assess, through the application of systems analysis techniques, the extent to which a given group of educational units are, or are not, fulfilling their obligations in meeting both the local requirements for trained manpower and their expected contribution to the State of Florida.
2. The Council recommends that a pilot program of Individually Prescribed Instruction (IPI) be conducted on a twelve month basis within the public school system to test its efficacy as a means of leveling the seasonal competition for employment.

B. Communication and Information

1. In concurrence with the State Plan, the Council recommends very close and continuous cooperation among all local, state, and federal agencies having *any* effect on vocational-technical and adult education be instituted. In addition, the private sector's influence, i.e., industrial training programs and private vocational training schools must be considered.
2. The Council recommends that the highest possible priority be given to the continued development and early implementation of a state-wide management information system.

   (*a*) It is recommended that the State Department of Education adjust its present annual reporting date for VTE information for the Federal Report to an earlier one.

(*b*) It is recommended that an interagency council be established on the Federal level to adopt a common occupational classification ystem.

3. To alleviate the problem of facilities planning and construction that is only partially representative of the total social, economic, and physical vitality of communities, the Council recommends that planning techniques incorporating open public forums (Educational Facility Charrettes) be initated on a plot basis.

C. Counseling Programs

1. To meet manpower requirements, the Council recommends that the vocational guidance program include: (1) *complete* job information, and (2) *complete* orientation on the economic value of various educational achievements and degrees.

2. The Council recognizes the need for a computerized vocational-technical data bank and recommends that this be incorporated in the Management Information System. Additionally, occupational guidance be revised radically and improved *in light employment requirements*. The use of computerized job-supply-and-demand listings could erase the inefficiency and wasted job potentials that create a "skills gap."

3. The Council recommends that community leaders be approached by counselors, advisory councils and instructors in an attempt to gain their support for employment of all students seeking vocational opportunities.

D. Professional Requirements

1. The Council recommends that State licensing boards review licensing requirements. All requirements and testing procedures should be appropriate to the work to be performed.

2. The Council recommends that national associations act to coordinate the development and stabilization of realistic standards for licensing health-related service workers.

GEORGIA

Chairman—Dr. Charles McDaniel
Executive Secretary—Don Cargill

REPORT: GOALS FOR VOCATIONAL EDUCATION IN GEORGIA

Today the uneducated are fast becoming an economic liability. Educated people are the "capital" of a technological society. In such a society vocational education takes an added dimension as the initial entrance into employment requires a higher level of preparation. Too many of our youth are leaving schools inadequately prepared to make their maximum contribution to the development of our state. Reduction in the dropout rate in the schools of the State is one of the most challenging and pressing problems faced by society. Public education in Georgia must assume the responsibility of preparing all young people for meaningful careers.

To assume this responsibility it is recommended that public education in Georgia make operational the following goals:

Provide to persons of all ages in all communities of the state ready access to vocational education which is realistic in the light of actual or anticipated opportunities for employment and which will develop their highest potential as workers and citizens in satisfying, socially constructive and gainful careers.

Provide a vocational education program that is broad enough in scope to include: Developing positive work attitudes; facilitating occupational and education choices; preparing for employment in semi-skilled, skilled, technical and subprofessional occupations; upgrading for employment in occupations requiring preparation other than a bachelor's degree; and assisting in the job placement of all youth seeking employment.

Organize a developmental program of vocational education that begins in the elementary grades and continues through each succeeding level—junior high, secondary, post-secondary and adult. Such a program would serve as a core around which other school experiences could be organized in order to utilize the natural youth motivation toward careers.

REPORT: VOCATIONAL EDUCATION IN ELEMENTARY GRADES

Needs: Research has shown that attitudes toward work are rather well developed by the time a student reaches the sixth grade. In current elementary school textbooks, the focus is generally limited to the professions rather than spread over the full scope of occupations. There is a tendency on the part of many teachers to place emphasis on professional occupations when vocations are discussed. Students need an opportunity to view all work in a positive manner in order that they may develop the proper outlook toward work during these important formative years.

Goal: Provide students at the elementary level with experiences necessary to acquire positive attitudes toward work and an increased knowledge of self in relation to work.

Status: At present there is little systematic effort toward meeting career development needs in elementary schools.

Recommendations: To meet the career development needs of elementary school children, it is recommended that the State accept the responsibility to:

Encourage elementary educators to fuse career development activities in the elementary school curriculum.

Provide funding to develop curriculum materials for career development activities in grades one through six.

Encourage teacher training institutions to include career development experiences in teacher preparation programs.

Provide funds for in-service training of teachers at the state and local levels in order to improve the capability of professional staffs involved in career development programs.

That the local system accept responsibility to:

Fuse into the elementary school curriculum a wealth of career oriented activities, including planned visits to work sites.

Conduct in-service programs for the purpose of orienting elementary teachers to the total employment/jobs picture.

REPORT: VOCATIONAL EDUCATION IN GRADES 7 THROUGH 9

Need: Grades 7 through 9 constitute a major education decision point. It is during this critical period that many youth decide to leave school. Students at this level need to find logical and convincing reasons to remain in school. They can do this most effectively by identifying with possible career goals and by receiving guidance toward educational avenues to obtain these goals.

Goal: Provide students in grades 7 through 9 with experiences necessary for making future educational and occupational decisions, for seeing a relationship between school and future employment, and for acquiring employability skills.

Status: During the 1969–70 school year 300,932 students were enrolled in grades 7 through 9. Existing resources provide only 30% of the students with at least two years of exploratory and prevocational education as follows: 3.8 percent in programs of educational and career exploration (P.E.C.E.); 1.2 percent in special, coordinated vocational and academic education (C.A.V.E.) programs for identified potential dropouts; 14.5 percent in prevocational agriculture; 67.1 per cent in prevocational industrial arts; 13.4 percent in prevocational business education.

Recommendations: In order to meet student career development needs as a central part of the educational system in grades 7 through 9, a joint effort must be made by the State and local school systems. It is recommended that the State:

Provide sufficient appropriations to implement Act No. 713 of 1969, amending Section 33 of the Minimum Foundation Program of Education Act, allocating exploratory and pre-vocational teachers over and above teachers earned under Section 11. The level of funding should be sufficient to provide at least two years of exploratory and pre-vocational education for up to 80 percent of the students in Grades 7, 8, and 9.

Provide funds needed for instructional equipment for exploratory and pre-vocational laboratory programs.

Place exploratory and pre-vocation teachers on year-round contracts for the purpose of providing extended work experiences for students during the summer months.

That local systems in order to receive state funds:

Develop a comprehensive plan for reducing the flow of dropouts and increasing the flow of students moving from junior high into the high schools.

Provide an across-the-board exploratory program at Grades 7, 8, and 9, designed to provide youth with a base of experience for making future educational and occupational decisions.

Provide pre-vocational programs designed to allow students to explore in greater depth broad occupational areas such as manufacturing, human services, business and agriculture.

Provide a curriculum structure that utilizes the concrete experiences of the vocational laboratory to teach basic academic skills.

Have all teachers relate subject areas to various occupations.

Report: Vocational Education in Grades 10–12

Need: Students at grades 10 through 12 need education which will provide flexibility in decision making, and which will assist them in moving progressively from the school setting to the next logical step, whether it be work or additional education.

Goal: Provide students in grades 10 through 12 with entry level skills for broad occupational areas and/or the preparation for post-secondary vocational education.

Status: During the 1969–70 school year 216,090 students were enrolled in grades 10 through 12. Existing resources provided only 31.5% of the students in vocational training with at least five units of vocational education; students served were distributed as follows: 15.2 percent in vocational agriculture; 6.2 percent in trade and industrial education; 75.3 percent in business education; 2.8 percent in distributive education; .5 percent in occupational home economics.

Recommendations: In order to meet student career development needs as a central part of the educational system in grades 10 through 12, a joint effort must be made by the state and local school systems.

It is recommended that the State:

Provide sufficient appropriations to implement act No. 713 of 1969, amending section 33 of the Minimum Foundation Program of Education Act, allocating vocational teachers over and above teachers earned under section 11. The level of funding should be sufficient to provide at least five units of preemployment vocational training for 60 percent or more of the students in grades ten, eleven and twelve.

Provide specific appropriations for funding up to 80 percent of the cost for constructing area vocational high school facilities. State appropriations for this purpose should be large enough to make such a program accessible to every student in the State within five years.

Provide funds needed for instructional equipment for vocational laboratory programs.

Use the facilities and equipment for the education of youth on a year-round basis. This will necessitate the employment of these teachers on twelve-month contracts.

Provide maintenance and operation funds to local systems for area vocational high school programs.

Provide funding for all school systems or combinations of systems with 10,000 or more average daily attendance in grades one through twelve to employ a person specially qualified to give leadership in designing and implementing a comprehensive program of vocational education for all youth.

Hold local systems accountable for reducing the flow of dropouts in order to continue to receive funds above the minimum foundation program.

That local systems in order to receive state funds:

Develop a coordinated plan for reducing the flow of dropouts and increasing the flow of students leaving school with a job skill.

Provide vocational programs in broad occupational areas designed to prepare students in grades 10 through 12 for employment in a number of entry-level jobs.

Provide vocational programs in specific occupations through early or advanced placement in an area vocational-technical school or through a specialized cooperative work-school training program.

That local systems cooperate with other agencies in providing a job placement program for all work-bound youth.

Provide a curriculum structure for relating the vocational phase with the academic phase utilizing the concrete experiences to teach basic academic skills.

That local systems accept further responsibility to:

Create a school climate that communicates to each student dignity and respect for himself and for what he may become.

Have all teachers accept equal responsibility for preparing all students for their next step beyond public school.

Have all teachers relate their subject area to various levels of occupations.

Schedule each teacher for planned observations in different businesses and industries.

Develop annual follow-up on students for 5 years after they leave school.

POST-SECONDARY AND ADULT

Need: Youth finishing high school have increasing needs for occupational competencies before entering the labor market due to the technological changes constantly taking place in industry. For many of these high school training alone is no longer sufficient. Many Georgia adults are also finding that their potential in industry is severely limited because of inadequate educational preparation. Adults need vocational education programs that will fulfill their role for retraining and upgrading to meet industry's increasing demands.

Goal: Provide out-of-school youth and adults in all communities of the State ready access to pre-employment training and upgrading in specific semi-skilled, skilled, technical, and sub-professional occupations.

Status: During the 1969–70 school year, 15,927 full-time students were enrolled in Georgia's 25 area vocational-technical schools. Another 63,647 part-time students were enrolled in adult vocational classes.

The full-time students were distributed by occupational groupings as follows: 43.2 percent, trades and industry; 13.9 percent, technical; 2.5 percent, marketing and distribution; 23.9 percent, business and office; 4.7 percent, occupational home economics; 11.2 percent, health; 0.6 percent, agriculture.

The part-time adult students were distributed as follows: 31.4 percent, trades and industry; 5.8 percent, technical; 14.4 percent, marketing and distribution; 23.7 percent, business and office; 18.5 percent, occupational home economics; 0.2 percent, agriculture; 3.1 percent, health; 2.9 percent, other.

Recommendations:

That the (STATE) accept the responsibility to:

Expand area vocational-technical schools to serve at least 40 percent of Georgia's graduating seniors each year and to serve each year approximately 12 percent of the adults employed in jobs requiring less than a bachelor's degree.

Provide maintenance and operation funds to local systems for area vocational-technical school programs.

Provide adequate appropriations for funding up to 80 percent of the cost of expanding area vocational-technical school facilities.

Provide a revolving fund account for the purpose of making loans to needy area vocational-technical school students funded at a level to support 25 percent of the student body.

Provide for a 5 percent annual replacement of the equipment originally placed in area vocational-technical schools.

That (LOCAL SYSTEMS) which are operating area vocational-technical schools:

Maximize the use of existing resources.

Modify existing programs to more effectively serve disadvantaged and handicapped students.

Provide short-term, single skill job preparation for the disadvantaged and handicapped.

Develop special outreach programs to enroll unemployed and underemployed youth and adults and high school dropouts.

Develop in cooperation with existing agencies job placement services that include both job development and assistance in job adjustment.

Enroll full-time students on a quarterly basis.

Expand the use for the existing area vocational-technical facilities from 6 hours per day to ten hours.

GENERAL RECOMMENDATIONS

That the STATE accept the responsibility to:

Support an instructional materials laboratory within the university system of Georgia for preparing curriculum materials for local systems.

Provide specific appropriations for teacher education necessary to prepare and upgrade staff to implement the program.

HAWAII

Chairman—James Misajon
Executive Secretary—Robert Toothman

GOALS

The State Plan for vocational education is currently submitted to satisfy the needs of the U.S. Commissioner of Education. It is structured from rigidly defined guidelines submitted from the U.S. Office of Education. The required format does not supply all of the information needed by the State Advisory Council. Some of the mission information appears in budget and other documents. The State Plan is useful in planning; it looks ahead five years. For its own evaluative purposes, however, the State Advisory Council needs a document which is more comprehensive and specific in setting forth its goals. We therefore recommend that the Research Coordinating Unit develop such information in a readily useable form.

A data collection system for management information is badly needed to assess the total vocational education program. Parts of systems are utilized to synthesize data, but a unitized system would allow for better information retrieval so that earlier program planning can be developed. A statewide management information system is being initiated to provide back-up information for vocational education program plannning and for annual reporting.[1]

A system to provide area planning should be developed to assure that new programs are initiated in a planned manner based on stated priorities from Parts II and III of the State Plan.[2]

A more current and meaningful State Plan document would be possible if there were adjustment of the dates for submitting State Plan and State Advisory Council Evaluation Reports to the U.S. Office of Education. Recommendations from the Evaluation Report should be incorporated into the State Plan at an earlier time than is now possible. The present submission dates are such that the State Plan has to be submitted three to four months ahead of the Evaluation Report. This causes eight or nine months delay before the recommendations from the Evaluation Report can be incorporated into the State Plan. If the date for the Evaluation Report could be scheduled prior to the annual rewrite of the State Plan, immediate consideration could be given to the recommendations made by the State Advisory Council.

EFFECTIVENESS IN SERVICING NEEDS

The general strategy of the Hawaii system of public education is to treat preparation for vocation as a continuum in which the primary and secondary schools provide the most basic skills needed for entry level employability, training or retraining, while more specialized occupational preparation takes place in community colleges, on the job, or in other post-high school situations.

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[1] Annual Federal Reports were turned in 2 months late on December 2, 1969. The Community Colleges caused the delay in report submission.

[2] No available reports indicate that area planning is taking place.

The State Master Plan recognizes that the primary goal of schools in grades K-12 is the maximum intellectual development of all children, and that a sound background in language, mathematics, social studies and science is the best basis for successful vocational education and employment.

It also recognizes, however, that various methods may be used to develop intellectual abilities. Some students at every level may need remedial or compensatory work or a different learning situation in order that they may succeed and be motivated to learn.

It is common knowledge that too large a proportion of our students are "disenchanted" with the traditional curriculum. Some become drop-outs. Others stay in, and develop attitudes toward learning which prevent them from developing to their best potential. Frequently a bad self-image results.

Some secondary school programs have been initiated during the past two years which seem to provide alternatives for the "disenchanted" and the handicapped. Amongst these are:

The Occupational Skills program for the mentally retarded educable.

The Pre-Industrial Preparation program for underachieving, academically deprived youths. This program uses a team approach to teach verbal, scientific and mathematical skills by correlating the specific occupational experiences to those academic skills.

Cooperative education.

Early admissions to the Community College vocational-technical programs.

Unfortunately those alternatives at present are available to only a small percentage of those who need them.

The Occupational Skills program is available in only five secondary schools, the Pre-Industrial Preparation program in three. As beginnings, both show great promise but need to be vastly expanded.

Cooperative education is an older program which reaches 438 secondary students. (The Community Colleges are committed to expand cooperative education, but the present level of participation—43 students—is inexcusably low.) More attention should be given to expanding cooperative education-work-experience programs at all levels. Schools must vigorously promote the program within business and industry in order to develop more work stations.

Early admissions are not much further along now than they were in 1968, when the Master Plan observed that "Early admissions are occasionally allowed now but the program is spotty and lacks a clearly established policy." In practice, only Kauai Community College has done much along this line—with 143 early admissions in 1970, of which 43 were vocational, 100 academic.

The Community Colleges have a variety of facilities for specialized vocational instruction which it would be uneconomic to duplicate in secondary schools, but which could well offer alternative learning situations for students whose needs are not being met in the secondary school. Neither age nor lack of a High School diploma should bar a student whose needs for specialized instruction could best be met in a Community College. There must be a review of policy and administrative procedures to promote cooperation between High Schools and Community Colleges in meeting the individual instructional needs of all students.

Further effort needs to be made to strengthen articulation between the High School cluster programs and the Community College specialized programs. It was found that very little information on the High School cluster program was known by Community College administrators and instructional staff. A concerted effort to improve articulation should improve channels of communication.[3]

The Community Colleges must continually reassess their specialized curriculums to keep them abreast of work practices and technological change. At present much of the equipment and curriculum is out-of-date, and many facilities are inadequate. Unfortunately most of the instructional material is produced on the mainland and does not reflect island conditions and practices; it should be revised and supplemented as necessary to meet local needs.

The Community Colleges must make a greater effort to ensure that funds are being spent in the most productive way. The instructor loads in some vocational programs are too low, so that costs per graduate student are unusually high. In some of these programs there is good opportunity for occupational placement. By contrast, other programs which offer less chance for occupational placement have larger enrollments. Provosts must be held accountable to design programs around occupational needs and to ensure that students do not enroll in programs which do not offer the student a reasonable expectancy of employment after he completes his formal education. Obsolete programs must be updated or discontinued.[4] Where less-than-class enrollments inflate costs, other ways of providing good quality instruction—such as on-the-job, contracting-out, or individual referral—should be sought after. In this connection there are many indications that present construction plans need to be reviewed in terms of proper priorities.

The Community Colleges have not given adequate consideration to apprenticeship and on-the-job training. These are highly effective educational arrangements and must be strengthened and better served. More people are enrolled in apprenticeship-related night classes than in the regular vocational day classes, but the night classes—"where the action is"--are greatly hampered in teacher-load, facilities and equipment, by arbitrary budgeting procedures.

There is a great weakness in recruiting and preparing vocational technical instructors and there is a lack of in-service training. The best instructors are experienced tradesmen and technicians who have had the advantage of formal instruction in teaching methods. The need for a suitable teacher preparation program is urgent.

HUMAN RESOURCES DEVELOPMENT

The Master Plan says that students should have an exposure to and an awareness of the world of work and career options as part of the learning process at all levels.

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[3] *State Master Plan*, 1968, pp. 12, 23, and 92.

[4] Summary of Graduates, 1954–69, Honolulu Community College.

A newly-designed High School program—Introduction to Vocations—is guidance oriented and includes knowledge about the possible career opportunities as well as experience in the various clusters of occupations. This program aims to appeal to students with varying abilities, interests and aptitudes as opposed to any one level of ability. For example, a student with scientific aptitudes may pursue his interests in a highly technical field of work while another who likes to work with people may explore the opportunities in the social services.[5]

At the Intermediate level, the schools have examined a program developed by Ohio State University and incorporated parts of it into the curriculum.[6]

Our schools must always bear in mind that they are responsible for encouraging all students to realize their full potential—those who will not go on to an academic college course, as well as those who will.

If the schools were to see themselves as being only a social institution for the preparation of youth to continue academic education, they would stand self-convicted of massive failure, because thousands of students do not go on to college. Nationally, 60 percent do not. In Hawaii, 41 percent do not go on to post-high school education.[7]

The schools proffer to be comprehensive, and designed to meet the needs of all students, but they give more attention to programs for the academic and college-bound than for others. Equal attention should be given to making academic programs a rich and rewarding experience for the non-college bound, recognizing that this may be their last opportunity for this sort of formal education.

Vocationally-oriented programs enable many students to discover their own capacities and interests and to have successful learning experiences. This opportunity should be offered to all students.

The official policies of our schools recognize the need for vocational education at all levels. In the past two years some beginnings have been made in this direction, but in practice the policy is still far from realization. If we are sincere in our profession of concern for our youth, more resources must be made available to this end.

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[5] An Overview of Hawaii's Vocational-Technical Education in the Secondary Schools, February, 1970.

[6] The original courses were called "The World of Construction" and "The World of Manufacturing."

[7] "Secondary Student Status Survey," 1968–69, p. 43.

IDAHO

Chairman—Dr. James L. Taylor

Ex. Officer—Vernon Exner

RECOMMENDATIONS

It is recommended that:

1. The State Board for Vocational Education make a request to the State Legislature for twice as much money for the 1971–72 year as was requested for the 1970–71 school year. This extra money should be planned for the State area vocational schools, increased aid to secondary schools, and expanded programs for the handicapped, disadvantaged, adult cooperative, and depressed areas programs. The additional funds should be justified on the basis of a more dynamic vocational-technical educational program. Also that the State Legislature be asked to memorialize the United States Congress to make funds available prior to the beginning of the vocational programs.

2. In view of the manpower needs of the State, greater emphasis should be placed on the following training areas. Only a small percentage of the demands of the State will be met if current trends persist.

a. Health occupations, especially in emerging new fields for post-secondary schools.

b. Service occupations, such as those related to home economics for adults and youth at the secondary level.

c. Off-farm occupations in agriculture for youth and adults at the post-secondary level.

d. Marketing and distributive occupations for youth and adults with increased emphasis on the post-secondary level.

e. Technical programs for youth and adults at the post-secondary level.

f. Office occupations for youth and adults especially at the post-secondary level.

g. Trades and industry programs at the post-secondary and adult level.

h. Promotion of a consumer homemaking education program for each high school in the State to meet at least minimum standards. Planning for expansion and improvement of each on-going program of vocational home economics. Development of more occupational home economics programs in the larger population centers.

i. Expansion of programs and increased enrollments in the office occupations programs to supply additional workers to meet projected requirements.

j. Expansion of distributive education programs to meet marketing personnel projections.

k. Development of additional programs in off-farm agricultural occupations to assist in meeting employment needs indicated.

l. Development of pre-vocational training for handicapped students in cooperation with special education and the Department of Vocational Rehabilitation.

m. Promotion of a pre-vocational occupational orientation and exploration programs to be offered in every high school to provide students an opportunity to become acquainted with many different occupations.

n. Furthering of the multi-occupational cooperative programs which would assist the smaller high schools in providing a more comprehensive program to meet the needs of more students. Many high school communities, however, are not of sufficient size to furnish the number of work stations necessary to make such a program practical.

3. Maintaining the same structure of organization, with the State Director coordinating his program through the State Superintendent of Public Instruction and the Executive Director of Higher Education. This system, well handled, could be a model for other states due to the fact that it provides visibility for Vocational Education, that it ties Vocational Education to the institutions of higher education throughout the State (except for the University of Idaho) and allows the State Director access to the agenda of the State Board. The present organization should be carefully watched and if a situation develops wherein the activities of Vocational Education in Idaho are being limited, it is the recommendation of this evaluation that the Director be placed on a level of equal authority with the Superintendent of Public Instruction and Director of Higher Education.

4. The Idaho State Advisory Council for Vocational-Technical Education hire a permanent full-time executive-secretary to provide continuity, coordination, and counsel.

5. The State Board for Vocational Education should improve the articulation of the vocational program by developing in the elementary schools a comprehensive program of developing positive attitudes toward work and career orientation (such as Wyoming) and expanding pre-vocational programs on the secondary level.

6. That the State Board of Vocational Education expand the programs for handicapped, disadvantaged (such as Project Respect in Utah), adult, cooperative, and depressed area programs to conform with the intent of the legislation.

7. That the State Board of Vocational Education greatly increase their efforts to improve vocational counseling in the State by:

a. Developing the concept that job training and job placement are inseparable and require the schools to work more closely with the Employment Security Office in job placement.

b. Hire a research supervisor on the State level and develop the Research Coordinating Unit.

c. Expand the in-service programs for counselors.

d. Consider expanding the Kimberly project to all similar sized school districts statewide.

8. That Vocational Advisory Councils throughout the State be used more effectively to bring current expertise to the State vocational

program to reduce the time lag, develop a more meaningful curriculum and provide feed-back for current industry practices. In order to do this adequate funds should be provided advisory councils to insure success.

9. The requirements for vocational agriculture teachers and supervisors should specify a given period of actual experience on the farm or other agricultural pursuit.

ILLINOIS

Chairman—Donald E. Truitt
Ex. Director—William E. Nagel

State of Illinois, Advisory Council on Vocational Education—Summary Statements

I. There is strong evidence that total education is an urgent need, that education must be considered not a cost but an investment, and that education has become far more necessary for both the individual and society. The Council is firmly committed to the concept that an educational program must furnish its students a means to live fuller lives, and to have fulfilling, productive careers. The system should provide for the articulation of general education and occupational education from Kindergarten through all levels.

II. As a direct result of the reorganization of the Division of Vocational and Technical Education, the decision making process within this State agency was taken from the traditional subject matter organization (as a structure) and based more upon a functional approach. This concept was encouraged by the Vocational Education Amendments of 1968. The Advisory Council endorses this change made by the State Board.

III. The investigative activities of the Council were at a disadvantage because of the lack of information and data. Much of the available data admittedly was not as credible as desired. The Council is not aware of any State agency that has reasonable data or information on the needs of the economy for trained manpower; nor is there accurate data or information as to how effectively these needs are being met. There is a pressing need to devise a system of collection and retrieval of necessary information so that projections can be meaningful and priorities can be established.

IV. Advisory Council Studies and Reports.

A. The Advisory Council compared data from the 1970 State Plan with that of the 1971 State Plan to analyze how effectively the Vocational Education objectives as set forth by the State Board had been implemented.

B. A study "An Exploratory Analysis of Differential Program Costs of Selected Occupational Curricula in Selected Illinois Secondary Schools" has begun. This study will speak to these areas:

1. Differential program costs for selected programs.
2. Alternate methods of budgeting and allocating program costs to various occupational curricula.
3. Collection and analysis procedures to obtain differential program costs.
4. Recommendations for the internal accounting necessary for an effective program cost reporting system.

5. Program cost data in sampled schools for a two-year period for English, Science, and Vocational programs.
6. Initial program costs (start up cost) from two additional schools.
7. An *ex post facto* study of the collection, processing, and reporting of data on expenditures per student in junior college vocational programs and academic programs.

V. The budgeting environment for 1970 was extremely complicated by a number of crucial circumstances. These events have a bearing on the decisions made, and the priorities established.

A. The amendments of 1968 mandated fundamental changes in program emphases and priorities and called for a new State Plan describing administrative structure and policy.

B. The Illinois State Plan was transmitted within the time scheduled but was rejected (as were all others). Reorganization was deferred until after August 1, because of the uncertain status of the State Plan and the appropriation. Filling staff positions after this date was extremely difficult.

C. The State Plan was approved at mid-September. Only then could work begin on detailed policies and procedures. The submittal data for local plans was six months out of phase for desired planning and reporting. Student units in approved schools were not reported until March and newly identified priority areas were not known at that time.

D. The late date of the approval of the Health, Education, and Welfare appropriation for fiscal year 1970 created a situation where 1970 funds were still unknown when the 1971 budget was being prepared.

E. A transitional period of some length will be necessary for full implementation of the Act, refinement of new policies and procedures, and the establishment of firm basic data from which to project.

VI. The Advisory Council recognizes the severe constraints imposed upon the State Board by the factors outlined above, and has taken these into consideration in their remarks in answering the evaluation questions posed by the U.S. Office of Education.

State of Illinois, Advisory Council on Vocational Education—Long-Term Recommendations

The Advisory Council is quite aware of the tremendous problem the State Board had during the past year trying to almost totally redirect the impact of the Vocational Education Amendments of 1968. These problems when accompanied by an appropriation made nine months late are exceedingly difficult to overcome. The State Board is moving on all fronts in implementing the intent of the Act. Many of the recommendations made by the Advisory Council to the State Board in the first Annual Report (1969) were achieved. Those recommendations not achieved are continuing to receive the attention of the staff of the State Board.

The Advisory Council would suggest to the State Board these long-term recommendations:

1. There must be a greater expansion of relevant occupational programs to cope with the problems of school dropouts, the disadvantaged, the handicapped, the unemployed, and others. Present programs need to be evaluated and irrelevant programs modified or eliminated; and new programs need to be initiated to meet the projected manpower needs.

2. Greatly increased financial support must be forthcoming. Programs cannot be sustained nor initiated without money from all levels, Local, State and Federal. Local school districts must recognize their commitment to vocational education by redirecting local funds to meet the needs of the students in the district. The State Legislature must be convinced of the urgent need for these new programs and requested to increase State funds for their implementation. Congress must be urged to provide full funding of vocational and technical education under the Act.

3. The proliferation of the management and administration of vocational education at the national level is mirrored in Illinois. There are too many State agencies or departments having a role in the administration of vocational education. Each agency has its approach and solution to the problems. This tends to create separate, costly and isolated action. There must be improved articulation and coordination of all manpower efforts. The State Board has the responsibility to assist in affecting a solution.

STATE OF ILLINOIS, ADVISORY COUNCIL ON VOCATIONAL EDUCATION—RECOMMENDATIONS FOR IMMEDIATE ACTION

The State of Illinois should:

1. Promote the improvement of the administration of vocational and technical education through programs such as seminars and internships for chief school administrators such as school superintendents, junior college presidents, deans of academic studies and agency board members.

2. Improve surveillance of programs, services and activities of the Area Vocational Centers, the Community Colleges and the secondary schools, to minimize duplication and competition for students, equipment, facilities and money.

3. Relate funding for vocational education to enrollment as in State financing for other types of education. At present, appropriations are made in a lump sum so that if the Division of Vocational and Technical Education is successful in increasing enrollments, the amount per student is automatically decreased.

4. Initiate a coordinated electronic system of data collection and retrieval for program planning.

5. Require that each school include provision for a system of placement and follow-up of all vocational and technical students as part of each local plan.

6. Initiate a State Manpower Needs Study through cooperation of State agencies.

7. Urge school districts, irrespective of level, to adopt the premise that education (and particularly occupational education) needs community lay expertise in the development of the educational programs.

8. Expand efforts to support programs in occupational orientation beginning with the elementary school.

9. Support programs initiating new, and upgrading traditional programs meaningful to women at the skill, technical and semiprofessional level to encourage a greater number of women to become involved in vocational and technical education.

10. Support the development of a broad program of occupational education for adults.

11. Expand its leadership role of interaction with other State agencies to insure coordination of funding and programs.

Recommendations to the United States Commissioner of Education, and the National Advisory Council on Vocational Education.

The State of Illinois Advisory Council on Vocational Education recommends:

> The Commissioner and the National Advisory Council urge Congress to provide full funding for vocational education as provided in the Vocational Education Amendments of 1968; and to provide advance funding (2-year) for all educational programs.

INDIANA

Chairman—James H. Fallace

RECOMMENDATIONS TO THE STATE BOARD OF VOCATIONAL AND TECHNICAL EDUCATION

The concept of "total vocational education" be adopted as a goal of major importance, rather than propagating dual systems which can cause unrealistic stratification.

Grants to the State to assist in conducting vocational education programs for persons of all ages in all communities be utilized to insure that education and training programs for career vocations are available to all individuals who desire and need such education and training.

Occupational information designed to create an awareness of the world of work and stimulate an appreciation for the dignity of labor should be instituted on a planned basis either as a part of the elementary instructional program (probably in the social sciences) or in a planned elementary guidance program, and exposure to specific job opportunities should be a part of the instructional units in high school vocational programs. "Human relations" units and "world-of-work" units should be a part of vocational guidance as well as occupational information.

In-service training for guidance people to serve in the role of "vocational counselors" should be periodically sponsored throughout the state.

Because the major burden for the creation of good vocational education programs is at the local level, and further, because there is an increased pressure on the local boards that area vocational schools be established, more state and federal funds be allocated to the local units for this specific purpose.

The establishment and support of programs meaningful to women at the skill or craft level, and in technical and professional areas of training be encouraged. Women represent over 35% of the labor force, but they get little preparation for wage-earning except in clerical and health fields.

The community college concept as an outgrowth of the Area Vocational Center be encouraged for wider use in the state. The community college with its comprehensive offering for the post high student and the high school graduate in the fields of industry, business, communication, transportation, health, and other fields would fill a definite need.

Vocational training should be concentrated as much as possible in area centers large enough to establish and maintain up-to-date and relevant programs. Small centers can concentrate on "general" vocational education—using basic shops and laboratories to develop broad fundamental skills and technical knowledge.

Provision be made in the State Plan for funds to finance the necessary supportive services needed for the disadvantaged. Provision needs to be made so that these services are funded with vocational state and/or federal funds. It is noted that special programs jointly sponsored by Special Education and Vocational Education should be structured for handicapped students.

The primary objective of the Practical Arts should be to be a vital part of general education with the secondary objective of serving as pre-vocational programs. Consideration should be given the possibility of recommending Practical Arts units in the upper elementary instructional program.

The State Plan should include provisions for the state to budget federal monies or state monies to support the recent policy statement of the U.S. Commissioner of Education regarding Vocational Youth Clubs. The state budget should provide funds for Regional and State Contests and monies to cover at least travel expenses for State Winners to participate in National Contests. This should be sufficient to cover anticipated expenses for the youth clubs in all vocational disciplines.

The continued development of a rational and streamlined system for planning, programing and budgeting by the Division of Vocational Education to meet state education needs be encouraged. Such a system should provide local educational agencies with program approval and findings information in ample time for sound local planning.

Sec. 3.22–2 III B of the Plan requires each local educational agency and teacher training institutions to have an Advisory Council selected by using the guidelines of the State Advisory Council as outlined in Public Law 90–576. This would seem to be impractical for all local educational agencies, but should be mandatory for all area vocational schools. These guidelines in turn would have to be adjusted by the local educational agency to meet the community needs. The Advisory Councils should not only have representation from the users of the product (Industry and Business) but from those involved with the training of the product (Educational Agencies) and from the product itself (parents, minority groups, etc.).

The State Board Staff in conjunction with the office of the State Superintendent of Public Instruction should investigate the special criteria being developed by the North Central Association for vocational schools and technical institutes for the purpose of developing accreditation standards.

The requirements that establish vocational certification must be reviewed with the object of more flexibility.

It is recommended that the state legislature pass appropriate legislation to regulate private proprietary vocational-technical education schools and institutes.

IOWA

Chairman—Robert G. Koons

Ex. Secretary—Harlan E. Giese

SUMMARY STATEMENT

Comments in this summary statement or in the remaining part of this study are not intended to imply intentional wrongdoing or incompetence on the part of the State Board or its agents, the personnel of the Department of Public Instruction.

It is the opinion of the Council that the general effort toward implementing increasing numbers of vocational programs to serve the people in the state is commendable. When compared to human and industrial needs, the Council concludes that there is an additional need for career programs to be established.

It is the opinion of the Council that Iowa has surpassed other states in the Nation quantitatively and qualitatively in establishing vocational programs. This is not intended to imply that efforts toward further expansion and improvement of vocational programs should not be continued. The Council suspects that there may be a need for more effort at the elementary and secondary level. Major areas that need attention include:

1. Improving the image of vocational education
2. Improving teacher education to impart the skills, knowledge, and sensitivity to teach the disadvantaged, minority groups, and handicapped
3. There is a need to adjust the philosophical basis for educational operations within the state. The present academic and scholastic emphasis should be adjusted to include recognition that all people will need to work and that the first priority for all of Iowa's citizens should be the development of saleable skills. Other education leading to the enjoyment of the "good life" should follow. This precludes additional change in the preparation of teachers and guidance counselors.
4. Other general findings of the study indicate that there is a potential for improvement in the operation of the Area Schools Branch and the Vocational Division in the State Department of Public Instruction to place this operation on a more business-like basis. This implies the need for better statistics, improved fiscal procedures, and an expansion of the research effort.
5. There appears to be sizable concern throughout the state on the subject of local control. There also is a recognized need for state-level coordination. Neither of these terms are defined and this calls to attention the need for additional work.

KANSAS

Chairman—Ed Doherty
Ex. Director—Murle M. Hayden

Recommendations

These, in each instance, are recommendations from the Council to the Kansas State Board of Education. The intent is that the Board, per se, may implement the recommendations or delegate the responsibility for implementation to the Department of Education as a whole, delegate it to one section such as the Division of Vocational Education, delegate it to more than one area of the Department, or to another agency.

1. The Board should arrange for an objective study and analysis of the respective responsibilities of secondary schools, area vocational schools, community-junior colleges and four-year institutions of higher learning with regard to vocational course offerings and responsibilities throughout the state. The results should be the basis for possible changes in legislation and policies. This recommendation merits the highest priority.

Rationale: Along with some excellence, there exists a degree of overlapping and undesirable duplication, a lack of coordination, and a lack of articulation which cannot be justified in the light of today's needs and tax burdens. The study should be conducted by an outside agency which has no vested interest in education within the State of Kansas and which is not suspected of having such a vested interest. Overall plans should be developed for a statewide system of vocational education which allows individuals to exert leadership and initiative, but prohibits the undue and unnecessary duplication and confusion which now exists.

2. The Board should make an intensive effort to secure more funds for vocational education.

Rationale: The secondary schools are in reality more college-prep than truly comprehensive in nature. More and better vocational programs are needed at the post-high years. Both Federal and State monies are needed. Additional state monies are essential if the program is not to be "federalized". The recent success in Colorado might be noted. More state funds would also facilitate better local planning (uncertainty of federal funding year to year is a real handicap). This also has implications for the Kansas State Plan for Vocational Education.

3. The Board should promote long-range planning on an intensive, coordinated basis.

Rationale: Certain factors, such as inadequate and uncertain funding have seriously limited long-range planning. Planning needs to be systematic, intensive, and coordinated for all levels and types of vocational education programs and services involving the education establishment and other agencies and groups concerned with manpower.

Clear-cut goals need to be developed, and then an examination of the instrumentalities that exist to meet these needs in terms of schools and their organizational structure. Relationships of secondary schools, area vocational schools, community-junior colleges and four-year institutions should be considered. The applications of systems such as PPB, PERT and Delphi Techniques are desirable as well as development of a mechanism for effective inter-agency planning.

4. The Board should initiate action to make the State Plan more a State of Kansas Plan, a more concise plan, a shorter and more specific plan, a more comprehensive plan. A "popular" version should be made and widely distributed.

Rationale: The present State Plan is so lengthy, obtuse, and filled with extraneous material that the usual professional educator, board member and citizen cannot or does not comprehend the Plan. More adequate state finances for vocational education would facilitate more state independence and precision in the planning process, and undertaking of activities which might or might not meet with favor at the federal level. There is widespread opinion that Kansas now has two plans: one for Federal approval (the Federal plan), and the one which is followed (the informal plan). The current formal plan, however excellent it might be, loses a great deal of its potential if it is not understood.

5. The Board should design and implement a major statewide inservice program for elementary, secondary, post-high and higher education administrators to review and update a philosophy of education with appropriate emphasis upon vocational counselling. Emphasis should be upon a broader concept and application of vocational education for total education fulfillment.

Rationale: The current disproportionate emphasis upon college-prep, the need to improve the image of vocational education, the inadequate counselling services, the tendency to sometimes use vocational education as a "dumping ground", the tendency to counsel all the "bright" students into traditional four-year colleges and universities, the need for organizational administrative and instructional changes all point to an urgent need. Needed changes in instruction may not occur until administrators and their boards decide to make these changes. Clear-cut goals and priorities must be a reality. There needs to be an awareness of occupations and the world of work, with a developing awareness in the elementary grades. There is a philosophy and a substance which needs to be defined especially to meet Kansas needs, transmitted generally among boards, administrators and counsellors, and diffused throughout the schools. There are emphatic evidences that too many people (parents, board members, administrators, guidance staff, teachers and students) still reveal the belief that vocational education requires primarily a "strong back" and that a superior intelligence or "academic talent" would be wasted in vocational education. All concerned need to come to recognize that much of the so-called vocational occupations today warrant and demand mental capacities as great as fields of nuclear science, physics, engineering, medicine, dentistry, law, ad infinitum. Equally significant, the potential for serving the needs of society, the potential for happiness and satisfaction of the individual, and the potential for monetary reward in vocational occupations today usually equals or exceeds those of many professions.

Sequential development of vocational education at all levels should constitute the conceptual framework for the in-service program here recommended.

6. The Board should design and implement a major state-wide in-service training program to improve the extent and quality of guidance services at the elementary, secondary, post-high and higher education levels.

Rationale: Note the rationale for recommendation Number 5 (above). Counsellors are in strategic position to bring about an improved image for vocational education which is today not only merited but also urgent for the benefit of the individual and society generally. Significant changes are esesential in the field of guidance and counselling, and active leadership from the Kansas State Board of Education is the most logical solution.

7. The Board should design and implement a plan to get every school district to officially assume responsibility for developing some degree of employability in every student.

Rationale: School districts should be encouraged to formally assume responsibility and take action to develop some degree of employability in every student, because almost every boy and girl (college-bound or other) will, during high school and upon leaving high school have need to earn some money through productive labor of some type. State aid would serve as an incentive for school districts to fulfill this responsibility. Rather than developing employability for a single job or type of employment, schools should provide the widest possible range of options for each student.

8. The Board should design and implement a program intended to get every secondary school to assume and exercise responsibility for appropriate placement of every student who leaves high school, whether by graduation or otherwise.

Rationale: This recommendation is related to recommendation Number 7. Traditionally, secondary schools have done a relatively excellent job in placing the college-bound student, compared to the virtually nothing done for other students. Respondents to the questions posed in the Self-Analysis phase of the study upon which much of this report is based, frequently indicated the school did very little if anything for the non-college bound student, that counsellors knew relatively little about placement opportunities for other students, that school personnel had no time allocated for this purpose, and that outside employment and placement agencies accomplished little if anything in this area. The solution may involve cooperative arrangements with state or federal employment agencies. For example, such an outside agency might assign an employment officer to the local superintendent of schools. In most instances such placement of a student would not be viewed as a permanent position, but rather as a stepping stone to additional education and/or employment.

9. The Board should design and initiate a pre-vocational orientation program state-wide in the elementary schools. This should begin with curriculum workshops to identify what is now being done, and to reach agreement on what should be done.

Rationale: This is closely related to Recommendation Number 5 and the rationale therefor. Curriculum committees need be designated and given the opportunity to identify course elements which contribute to vocational orientation, and to plan additional offerings. Programs underway in such states as North Carolina and Ohio merit observation.

10. The Board should initiate cooperative action among the Board, local districts, and other state agencies to identify prospective employment opportunities for youth of Kansas.

Rationale: Vocational training has an inherent obligation to train for employment needs and opportunities which will be existent when the student is ready to seek employment, and course content (at the upper levels) should give due consideration to such opportunities. Obviously, such consideration is impossible without current knowledge of the opportunities. The importance of statewide manpower planning and cooperative effort with the Employment Service is a must in improving vocational education. There is need for a forecasting system to achieve greater relevance between vocational offerings and employment opportunities. Eventually, state reimbursement might provide an incentive for certain types of training.

11. The Board should design and implement a plan for systematic follow-up of every student leaving a secondary school in the state (whether by graduation or otherwise) including the identification of why each student leaves and where he went.

Rationale: One means of determining what student needs are not being met by existing course offerings at various levels is to observe what happens to students who leave the schools. Responses of persons in the sixteen Kansas school districts involved in this study reflect a dearth of information of this type. There is need for a systematic and comprehensive statewide follow-up—which most logically should be designed, implemented and coordinated under the leadership of the Kansas State Board of Education. The National Center for Research and Training in Vocational Education at the Ohio State University has developed a computerized approach which merits attention for this purpose.

12. The Board should design and implement a program for more effective utilization of advisory groups at the state and local levels.

Rationale: Although there are many examples of excellent utilization of advisory groups in Kansas, there is evident need for improvement. Possibly the State Advisory Council might assume a leadership role in working with local advisory groups. There is need for additional clarity in definition of responsibilities (state and local levels), designation of State Department of Education staff or local school staff with specific liaison responsibilities with state or local advisory committees respectively, more adequate dissemination of minutes, and clearly defined policies and procedures for responding to, acting upon, and reporting action.

13. The Board should initiate action to periodically confer with employers (through appropriate advisory bodies), to ascertain skills, competencies and knowledge required for job entry and progression.

Rationale: This recommendation is related to the preceding one. It is also related to the "cluster" approach and the philosophy of providing training which will give the student the widest possible choice in entering the job market. Information gleaned from the periodic conferences with employers (via advisory channels) should constitute the basis for identifying clusters of skills and knowledge which in turn should constitute course content. Findings of numerous recent research projects should be carefully reviewed. Implementation of this Recommendation is deemed to be of extremely high priority.

14. The Board should initiate a systematic flow of statistical and other information from various vocational programs to the Board and to various advisory groups in order to facilitate more informed advice and decision-making.

Rationale: This recommendation is based upon the evident need for the Kansas State Board of Education, the State Advisory Council and other boards and advisory groups to be familiar with programs in order to make appropriate decisions and recommendations. For example, one must do much more than read the State Plan for Vocational Education in order to comprehend it. A management information system, including systematic means of gathering data and periodic staff presentations with appropriate visuals are minimum essentials. The data collection model devised at the National Center for Vocational-Technical Education (Ohio State University) is an outstanding model for data collection.

15. The Board should develop a more current, systematic, comprehensive information system collecting, processing, evaluating, and disseminating information.

Rationale: Many methods of teaching, materials for teaching, and curricula, have been found to be superior to others in current use, but for one reason or another are not implemented. The findings of many research and development projects are not known by many. The United States Office of Education for several years has been promoting and developing the ERIC system which puts vital information at one's fingertips. Information of a pertinent nature is collected and processed through about twenty national clearinghouses and made available on microfiche and other media. As a minimum, the Kansas State Board should have the complete microfiche collection for vocational education, reader-printers, and systematic procedures for continually evaluating and delivering research and development information to vocational personnel throughout the state (via current staff in the Division of Vocational Education).

16. The Board should precipitate an evaluation of vocational teacher education statewide and thereafter initiate action for improvement and expansion. Agri-business teacher education is one area meriting special attention.

Rationale: In Kansas, as in other parts of the Nation, it is apparent that teacher education has failed to keep current with changing needs. Vocational education faces a great challenge, and the education establishment will surely fail unless dramatic improvements are made in vocational teacher education. Respondents indicate that members of the vocational staff within the State Department of Education are often more in tune with current needs than are the teacher training staffs in the colleges and universities (such reports are also substantiated by higher education representatives). The evaluation of vocational teacher education (particularly pre-service) should begin with self-analysis followed by community reactions to identify changes

to be implemented. Note Recommendation Number 20, which is related to this one.

17. The Board should plan and initiate action to acquire responsibility for determining classification and salary for professional staff members of the Department of Education.

Rationale: The state vocational staff includes many outstanding, effective and dedicated persons. Concurrently there are several unfilled vacancies because existing classifications and salaries will not attract the calibre of individual who should provide state leadership. The present situation may be likened to being "penny-wise and pound-foolish." The Department should be able to attract some of the best qualified personnel from throughout the state of Kansas, and most frequently it cannot. The State Board of Education and the Assistant Commissioner of Education are in optimum positions to know the facts and make judgements in this area. The Board should be in a position to act accordingly, to expend available funds most effectively for salaries and for the best welfare of the state. The job to be done in the Department is at least as demanding and important to Kansas as the role of higher education. Salaries should be competitive. They are not now. Likewise, fringe benefits are also inferior.

18. The staff members of the Division of Vocational Education should undergo systematic self-analysis on time-use, and the results utilized as the basis for developing a differentiated staffing pattern.

Rationale: For a variety of reasons, including decision-making by state agencies outside of the Department of Education, there are indications that there is need for more differentiated staff at the state level. This again comes back to the reinforcement of state planning and program goals and a need for re-examining the role of state staff personnel. It appears there is an increasing emphasis on management of the educational and planning process at the state level, and that one of the major responsibilities should be the implementation of the state plan, or to put it differently, the assurance that state vocational program goals are fulfilled. Time analysis studies would provide one means of identifying levels of performance and arriving at differentiated staffing patterns. It may be that technician-type aides and assistants could bear much of the burden of present responsibilities. There is further hint, at least, that an effective state management system of information which is computerized, could reduce some of the clerical routines and provide the state leadership personnel with the data needed to make intelligent management decisions.

19. The Division of Vocational Education should be composed of line personnel who function as generalists in the field of vocational education, supported by one or more specialists in the various vocational education, supported by one or more specialists in the various vocational fields serving in staff roles.

Rationale: The structure of the State Division of Vocational Education implies several things; the absolute need for a precise job description and role clarity, a delineation of relationships, both within the Division and external to the Division, and a deliberate training effort to prepare individuals to function effectively in their roles. The Division is apparently progressing in the direction indicated by this recommendation (Number 19) and this should be lauded and encouraged. Key staff in the Division, the "front-line" so to speak, should

be vocational "generalists" whose role is to be concerned first of all with the total vocational program. Program specialists should be called in as necessary to supplement the role of the vocational generalist after the problem has been narrowed or focused upon the special vocational area.

20. The Board should promote some joint professional staff appointments with institutions of higher learning for mutual benefit.

Rationale: Note the rationale for Recommendations Number 16 and 17. Joint appointments would be beneficial to both the Department and to the institutions of higher learning. Areas of assignment for those who have been state staff should include teaching, research activities, curriculum and course development. University staff would benefit from more supervision in the field and actual work in the Department of Education. Joint activities should include program planning and systems development, evaluation of programs at all levels and others.

21. The Board should maintain a capability for meeting special training needs by reserving 5% of its "Part B" funds for contingencies of this type.

Rationale: Several industries are exploring the possibility of moving into the state. They will need a work force of local people. Such manpower requirements can best be met by special training programs. The Board might well ask the Legislature to set up a revolving fund to be available for this special purpose.

22. The Board should determine by January 1, 1971 the specific action (if any) which it has decided to take upon each of the Recommendations in this report, and advise the State Advisory Council for Vocational Education accordingly.

Rationale: This is consistent with accepted practice and is the minimum needed to facilitate the Council's evaluation of its own effectiveness. Many respondents have noted the many studies and special committees appointed in recent years. They emphasize that there has been enough study and the need is for ACTION. The Board should assume vigorous leadership now.

23. The State Board should make an annual report to the Council advising it (the Council) of the Board's progress in accomplishing the objectives inherent in the respective recommendations in this First Annual Report of the Kansas Advisory Council for Vocational Education.

Rationale: Note rationale for Number 22 (above).

KENTUCKY

Chairman—George A. Joplin III
Ex. Secretary—John W. Koon

Therefore, in view of our findings in terms of the relationship and responsibilities vocational education has to the people of our Commonwealth and to the full development of its human and economic resources and in view of the Council's responsibility to advise the State Board of Education, we offer the following recommendations:

I. *That the Governor of the Commonwealth of Kentucky establish regional advisory committees for vocational education and that the membership of these committees be selected so that the representation will be broad and will either represent or will be representative of interests which are directy tied to the human and economic resources development of our state.* We further recommend that the membership be composed of laymen and employers who are removed from active vocational education involvement and charged with specific duties which relate to the improvement of vocational education programs, services, and activities. Our evaluation revealed many areas of concern that need immediate attention, and it is the feeling of the State Advisory Council that vocational education needs and problems of a particular region can best be evaluated and reported on by regional advisory councils for vocational education. We strongly support the creation of regional advisory councils and urge them to work toward strengthening areas which we feel need attention and in other areas in which the regional council can be of help because of its closeness to the schools.

We make this recommendation in an effort to assure a greater involvement of business and industry leaders and other lay people in vocational education programs. Our findings revealed very few attempts to organize and involve lay citizens in the very important matters of curriculum planning and selection, curriculum modification and upgrading, and program evaluation.

II. *That the lines of communication which exist between vocational education and the business and industry community; vocational education and the public schools which includes teachers, students, and parents, and vocational education and the general public be strengthened.* Our findings showed that a communication gap is evident in all three areas mentioned, and we believe there can never be a common understanding of the needs of each until strong lines of communication exist among all concerned. We strongly urge the leadership of vocational education to assume the initiative and exercise the proper leadership in developing a more effective means of communicating with those for which vocational education is aimed as well as with those who have an interest in its programs.

III. *That vocational education give stronger attention to its vocational guidance programs, job placement responsibilities, and follow-up activities.* These three areas are not presently being viewed in their proper perspective and need to be playing a more active part in the vocational education effort. We feel there should be closer coordination of all counseling and guidance services available to secondary students whether they are found in regular high school for vocational schools and urge that the guidance effort be geared toward the realistic needs of people and the needs of the economy.

IV. *That vocational education develop and organize a systematic approach to continuous program assessment designed to keep its training programs aligned to the needs of people and to the employment needs of the economy.* Vocational education must be flexible and stay prepared to make sudden and significant changes in its priorities and objectives if it is to keep pace with the constantly changing society it serves. We urge that such a system be developed and play a significant role in the decision making process that guides the future of vocational education activities in our state.

V. *That school children be introduced to vocational education and oriented to the world of work at a much earlier age than is presently being practiced.* Employers are asking that a greater effort be made to develop proper attitudes toward work, better work habits, and stronger personal and social skills among the young people who are now entering the labor market. The Council feels this can best be accomplished by working toward the development of these skills at a much earlier age and urges both general educators and vocational educators to take a serious look at what they are doing in this particular phase of child development. There should be stronger programs to develop basic communicative skills, attitudes toward work and work habits, and a knowledge of what to expect about work. It needs to become a more integral part of vocational education.

In conclusion, it is obvious that the intent of this report was limited to pointing out areas of concern and recommending ways that they may be improved. We hope that our efforts to become contributors to the vocational education effort as well as receivers of its services are recognized and that we have made a constructive contribution to the growth and improvement of vocational education in Kentucky.

The Council wishes to take this opportunity to commend those persons who have contributed to the growth and development of vocational education in Kentucky and who have helped bring it to its present position of importance in preparing people for the world of work. The rapid growth in construction of new training facilities, increased financial support for vocational education, and greater numbers of people being served are indicative of the value Kentuckians have placed on vocational education. We salute the concerned and dedicated corps of vocational educators who struggle to stay ahead of the demands placed on them by growing and changing times and the enormous needs of an expanding economy.

LOUISIANA

Chairman—Dr. Vernon F. Galliano

Ex. Director—Wade H. Davis

RECOMMENDATIONS

As a result of the evaluation of vocational education programs, services and activities carried out in 1970 in Louisiana, the State Advisory Council makes the following recommendations for consideration and implementation by the State Board of Education:

1. As vocational education programs must provide an effective guidance and counseling service, it is recommended that consideration be given to determining ways of providing more vocational guidance services on all levels—elementary, secondary, and postsecondary.

2. Vocational education by the very nature of its philosophy and objectives must be reviewed and evaluated to insure that goals are realistic and objectives are met. It is recommended that more formal evaluations of local vocational education programs be made.

3. Vocational education should serve persons of all ages in all communities of the State. Due to various limiting conditions, some rural areas are not always providing training in all occupational areas, it is recommended that additional approaches or means be studied for the purpose of increasing vocational education opportunities in the rural areas of the State.

4. Valid and current employment and labor market data are essential to effective vocational education program planning. It is recommended that efforts be continued to secure the best possible data on manpower needs and job opportunities in the State which are reliable and comprehensive.

No courses will be offered in any secondary vocational school if they require a license until the course has been worked out with the licensing board designated by law to regulate that vocation.

5. The role of vocational educators is one of the most important segments of the total vocational education program. Occupational skills, knowledges, and competencies must be fully understood as well as the needs of business and industry. It is recommended that exchange programs for vocational education personnel be developed when feasible.

6. The providing of vocational education opportunities for adults in both supplementary and preparatory programs comprises an important purpose in vocational education. It is recommended that a review of vocational education programs for adults be made to expand and improve such programs to better meet State Plan objectives.

7. As one area of responsibility, the State-supported area vocational-technical schools serve the needs of persons who have either completed or left high school. It is recommended that programs be developed and course offerings be expanded to provide for persons who cannot successfully enter a vocational education program or who have needs for vocational education programs not presently being offered.

8. Vocational education programs must offer training which parallels as near as possible the actual industrial or business situation. It is recommended that as funds become available instructural equipment of high quality be acquired for vocational education programs where needs and priorities are established.

MAINE

Chairman—John Donovan

RECOMMENDATIONS

GENERAL

The Evaluation Team recommends that

1. A better public information program be developed especially at the state level to provide parents, students, and prospective employers with information about programs in regional centers and vocational-technical institutes.

2. High schools not currently part of a regional technical and vocational center give more attention to vocational offerings which will help serve student needs within a reasonable budget.

Cooperative work experience programs can frequently be established; business education programs can often be improved with more attention to the preparation of the general clerical students. Home economics programs can focus somewhat more upon the skills and knowledge which would make graduates employable in some capacity. Post-graduate or evening courses may be provided for graduates who have not reached a level which is fully adequate for initial employment.

3. The State develop an effective method for projecting manpower needs in the state. Such information is vital for the planning of vocational courses.

REGIONAL TECHNICAL AND VOCATIONAL CENTERS

The Evaluation Team recommends that

1. Additional regional centers be established as rapidly as resources and other conditions will permit their development on a sound basis. These will provide greater equality of educational opportunity and give youth and adults in the state access to the training and retraining needed to make them productive and self-reliant citizens.

2. There be close cooperation between the school officials, particularly the secondary-school principals, within a given region to facilitate the smoothest possible operation of the center. Scheduling is of primary importance if any students attend the center on a shared-time basis. The center should arrange a schedule so that "block scheduling" by sending schools is possible. At the same time, sending schools must recognize that a center cannot adjust its schedule to several different schools. Block scheduling can normally be done without any significant detriment to the students not attending the center.

3. Before approval is granted for a new center plans for cooperation and participation by all schools in the region be obtained and reviewed.

4. The State Board of Education require, as a condition of approval, that each center employ at least one full-time guidance person, who is knowledgeable about the world of work and who is assigned to work with the vocational director and staff and to devote his time to the needs of present and prospective vocational students.

5. Chapter 307 (Vocational Education) be amended by adding a section requiring a school administrative unit served by a regional technical-vocational center to provide transportation to and from the cented for enrolled secondary-school students.

6. The State Board of Education require periodic reviews of the programs in all regional centers and that continued approval and financial support be contingent upon a reasonable standard of service to the region.

7. Courses at the 13th and 14th level, whether full-time or part-time, be those designed to meet clearly identified needs within the centers' service area, such as the need for some post-graduate training for vocational students not yet fully prepared for employment, or to prepare persons for employment in a local industry. Such courses should not be designed to duplicate those offered at the vocational-technical institutes. It should be noted that no state financial support is provided for the instructional cost of such courses but the cost may be recovered through tuition charges to the persons enrolled.

8. A regional center and a vocational-technical institute cooperate when advantageous, and the institute sponsor and conduct a "satellite" course at the center which fills an identified need provided suitable facilities and qualified staff are available.

9. Regional centers continually appraise the needs of *all* students and that particular attention be directed to the needs of the disadvantaged and potential drop-outs in order to insure that the maximum number of these students can become self-supporting upon leaving school.

VOCATIONAL-TECHNICAL INSTITUTES

The Evaluation Team recommends that

1. The State limit the number of vocational-technical institutes to the five now in operation. The capital investment for such an institution is fairly large and small institutions are not efficient to operate. The state's resources can be used to better advantage to expand the existing institutes.

2. A post-secondary vocational-technical institute not be established at Waterville, but that an appropriate program be instigated as part of the regional center under the administration of the Waterville School Department in accordance with recommendations for courses at the 13th and 14th levels in regional technical and vocational centers.

3. The vocational-technical institutes continually appraise their offerings and that both full-time and part-time courses be designed to meet identified needs of people in the state as designated by the law establishing the institutes.

4. The appropriate authorities in the State Department of Education review the programs offered in the vocational-technical institutes with the objectives of developing consistent policies for admissions to comparable courses.

5. Consideration be given to the employment of one person to represent all vocational-technical institutes in the recruitment of high school students. For such a purpose a single brochure with basic information about all the institutes would be useful. (This is not to replace individual catalogues.)

6. The vocational-technical institutes give appropriate recognition to the training received by a student in a high school vocational program with suitable credit and that unnecessary repetition be avoided.

7. The vocational-technical institutes give serious consideration to all possible means of extending the services of the institutes through increased offerings for youth and adults during evenings and vacation periods.

MARYLAND

Chairman—Henry B. Kimmey
Ex. Director—Max E. Jobe

RECOMMENDATIONS

The Maryland Advisory Council on Vocational and Technical Education makes the following recommendations to the State Board of Education:

1. In Maryland, as in the entire United States, many relegate Vocational Education to an inferior role. Vocational Education is looked upon by many as a program for the low achiever, the lesser advantaged educationally, economically, and socially. This image exists in the minds of many educators, students, and the general public. The Advisory Council believes the problem begins with the educators and further believes the solution to the problem should begin with this group.

The Council suggests that a program be designed to correct this image by providing workshops for school administators, counselors, and teachers. These workshops should include sessions on employment opportunities, educational requirements, pay, and other economic benefits of the various vocations other than the so-called professions. Emphasis should be placed upon the tie-in of Vocational Education and the student's total educational goals. These programs should be structured to promote a change of attitude toward Vocational Education. They should involve dialogue between educators and representatives of business, industry, labor, government, and other lay groups.

2. The Advisory Council recommends that longitudinal studies be implemented with students from the school systems. These studies should involve a random sample of all students incuding those who left the public school system prior to completing high school. Such studies should begin in middle school, or early high school and follow the students for a number of years into adult life. The study should concentrate on how the person is performing on the job and the effects his education had on his job performance.

3. The Advisory Council recommends that local Advisory Councils be used in developing local plans and in evaluating local programs. The State should provide guidelines as to make-up and use of local Vocational Advisory Councils, and should insure that funds are provided for local council activities.

EVALUATION AREAS

I. State goals and priorities

On the State level many activities were started and some accomplished, which should eventually lead to the accomplishment of some of the State's goals and priorities. Some examples are—

A. An expanded state staff to work in the areas of handicapped and disadvantaged, post-secondary, consumer education, vocational guidance, and program administration.

B. Workshops for local teachers and administrators conducted by the State Department in the areas of priority.

However, an objective evaluation of the state goals and priorities is severely hindered by the lack of valid data, and the late and inadequate funding by Congress. Although the State Plan outlined the responsibility for the evaluation of Vocational Education in Maryland and designated the Research Coordinating Unit as the primary coordinating agency, it has not provided this evaluation or data which can be used in making such an evaluation. As evidenced by the 1971 State Plan, the goals, as outlined in the 1970 State Plan, were unrealistic because of invalid data. The Council feels the lack of evaluative data is perhaps the most critical problem facing Vocational-Technical Education in Maryland.

Recommendations

1. All agencies should impress upon Congress the necessity for early funding of Vocational Programs to allow adequate time for preplanning.
2. A system of collecting data should be implemented with the Research Coordinating Unit coordinating the efforts of the State Department of Education, the State Advisory Council, and the State Steering Committee on Evaluation of Vocational Education.
3. The Research Coordinating Unit should be expanded and restructured to make it more responsive to the needs of Vocational Education at the secondary, post-secondary, and adult level.
4. It is recommended that the Department of Education prepare a semiannual report relative to the achievement of its stated goals and objectives.
5. The goals established in the State Plan should be more specific and direct to the needs of the people. For example, the plan should recognize the high dropout rate in Baltimore City and develop goals to help alleviate this problem. The Eastern Shore has several counties in which the people have no opportunity for post-secondary education. Goals should be developed which will confront this problem.
6. The development of the State Plan should be a joint effort with the State Advisory Council and the Advisory Council and State Department of Education should initiate planning which will assure this joint effort.

II. Human Resources Development Program of the State

The State of Maryland, as most other states, has a magnitude of Vocational-Technical Education, Manpower, and Job Training programs conducted by numerous agencies. One of the few examples of cooperation is in the institutional phase of the Manpower Development Training Act. In this program, Congress spelled out the cooperative arrangement between the State Departments of Education and the Employment Security Commissions. The Cooperative Area Manpower Planning System has been of minimum effect because of an unwillingness on the part of agencies to enter into a cooperative venture.

Recommendations

1. The State Advisory Council recommends one agency be responsible for all Manpower and Educational Programs. This agency should be of cabinet level and have the authority to respond to the needs of the people and not to the preservation of institutions.

III. Effects of 1968 Amendments to the 1963 Vocational Education Act

The visible effects the 1968 amendments had upon Vocational Education in Maryland during the fiscal year of 1970 are limited. It would be unfair to expect dramatic changes to be made under the 1968 legislation since Congress is still funding the legislation in an amount less than that authorized in the 1968 amendments and the annual appropriations were not determined by Congress for fiscal year 1970 until March 1970.

The State has staffed the Division of Vocational Education to coincide with the emphasis given to special areas in the 1968 amendments. There are now specialists in the areas of disadvantaged, handicapped, post-secondary, evaluation, state plan administration, vocational guidance, program analysis, consumer education, and industrial training, in addition to the customary service areas.

The State Department has conducted workshops for teachers, counselors, and administrators in the areas of disadvantaged and handicapped, vocational guidance, part-time cooperative training, as well as the regular service areas.

The results of these efforts on the part of the State Department will not be in evidence on the local level until the 1970–71 school year. The ability to get local systems to move into new areas of concern is difficult and sometimes frustrating, and the State Department is essentially in an advisory position.

IV. Effectiveness with which the people and their needs are being served

With few exceptions, each school district in the State has at least one Vocational-Technical Center, either as a separate facility or as a part of a local high school. The post-secondary needs of the State are attempting to be met through the community colleges. However, some sections of the State, and particularly the Eastern Shore, do not have readily accessible community colleges. This, coupled with an out of county tuition fee, makes it doubtful if the post-secondary need is being met in all sections of the State. The programs offered by the community colleges usually require high school graduation for admission and are of a technical nature. Although there are many programs designed for adults and administered by a multitude of uncoordinated agencies, they are usually limited to the disadvantaged and unemployed. There is little opportunity for the adult to attend a state school in preparation for employment below college level.

There are limited data available to determine why some vocational programs are popular with students and others are not. In some schools the vocational programs attracted more students than they could accommodate. In other schools there was not enough student demand to fill vocational classes.

Recommendations

1. The local educational programs should be designed to meet the needs of the students whom they serve. Systems that do not have comprehensive programs should be encouraged to develop such.

2. Where post-secondary Vocational and Technical Educational opportunities are not now available, community colleges and other educational institutions should be encouraged.

3. An extensive evaluation of vocational programs should be undertaken to determine why some programs are popular with students and others are not.

V. *Employment opportunities within the State and training provided to meet these opportunities*

Figures released by the Maryland Employment Security Commission suggests that more than 60% of employment in the years to come will be in the service areas. An examination of the vocatoinal offerings of the public schools and community colleges does not indicate curricula designed to follow this trend. Most vocational offerings follow the traditional programs offered throughout the country and indications are that not enough effort is being made to key the curricula to local and state needs.

The Advisory Council feels the job cluster concept of Vocational Education has merit, particularly on the secondary level. This concept, coupled with cooperative work experience, could become a workable combination and one answer to the problems of high cost of equipping vocational laboratories and preparing students for obsolescence.

Recommendations

1. A continuous study should be made to determine what type of jobs will be available in the local and surrounding communities that are potential employment areas for graduates of vocational programs. Surveys of this type should be the basis for developing vocational programs.

2. A continual effort should be directed to developing the job cluster concept on the secondary level. Care should be taken to assure that quality is built into the program and that occupational areas within the cluster are clearly defined. Jobs should be clustered only to the extent that they are related and have a carry over of theory from one job to the other.

3. Local systems should be encouraged to develop cooperative work experience programs. Care should be taken to build meaningful work experiences with adequate coordination by the school system. A distinction should be made between the cooperative work experience program, which has job training as its basis, from the work-study program, which has financial need as its primary purpose.

MASSACHUSETTS

Chairman—Joseph W. Martorana

Ex. Director—Kenneth J. Kelly

SUMMARY STATEMENTS AND RECOMMENDATIONS

INTRODUCTION

This constitutes the summary of the annual evaluation report of the Massachusetts Advisory Council as required by Regulation 102.59 of the Office of Education Rules and Regulations for State Vocational Education Programs.

LIMITED SIGNS OF PROGRESS

There has been some perceptible forward movement and upgrading of certain programs and facilities in the Massachusetts vocational education system in recent years.

1. Vocational education in Massachusetts is finally reaching out to disadvantaged segments of the population which have been previously ignored: residents of urban ghettos, particularly black youth and adults; adult prisoners in state correctional institutions; juveniles in institutions under custody of the State Department of Youth Service; mentally retarded youth and adults; physically handicapped youth and adults.

2. Public and private institutions outside of the traditional vocational education network are sometimes enlisted in the implementation of goals where they have proven capability.

3. There has been steady progress in planning and building a statewide network of regional vocational-technical schools, which together with the growing system of regional community colleges, provides a modern organizational and institutional framework for realistic, high quality programs suited to the interests abilities and needs of all groups of people. The suburban location of most of these facilities, however, greatly restricts their attractiveness to and their convenience for many persons and groups in the central cities with academic and socio-economic handicaps. Moreover, most regional vocational schools are under-utilized. A number of them tend to ignore the needs of the most disadvantaged students by "creaming" some regional schools are reported to turn away two to three students for every one admitted by establishing unreasonably high entrance. In a sense this represents a trade-off, reflecting the Division's desire to improve the public image of vocational education. Unfortunately this has been achieved at the expense of students with the greatest needs.

4. There has been some redirection from non-gainful training in home economics toward gainful, relevant programs in this category.

5. Although there is dispute over research priorities, over the relative importance of operational vs. basic research, and over organizational responsibility for the research function in voc. ed. greater attention is beginning to be devoted to developing an adequate information framework and research capability useful for programming and evaluation. Allocation of funds to research activities (about $160,000 per year) is still at the relatively low level of less than 0.5% of operating expenditures for vocational education. Reliable, timely information about vocational education program inputs and outputs continues to be a major shortcoming of the vocational education system and almost an insuperable barrier to serious program planning and evaluation.

CONCLUSIONS AND RECOMMENDATIONS

Despite a few encouraging signs of progress, this report underscores a number of critical weaknesses in the planning and administration of vocational education in the Commonwealth. Although many of these deficiencies are fully shared by state vocational programs elsewhere in the nation, the problems seem particularly acute in Massachusetts. The follow-up research confirms the findings of the preliminary study regarding deficiencies in data gathering and analysis, research, planning and reporting systems.[1] The answers to many of the probing questions posed by the U.S. Office of Education's evaluation guide necessarily reflect this fact: because of serious gaps in information, exacerbated by the limited time and funds at the consultant's disposal, answers to key questions are incomplete. (Regardless of the time factor, however, much vital information is simply unavailable.) Instead much stress is placed on the need for developing specific comprehensive data and information to permit a timely, in-depth analysis for subsequent evaluation reports by the Council in coming years.

While the analysis has identified a substantial number of glaring operational deficiencies, the program planning area exhibits acute weaknesses. Some of the more obvious deficiencies include:

1. Program proposals for the 1970 fiscal year vary widely in quality of content and clarity of presentation; in many cases, the program goals are so unclear as to defy post-program evaluation; criteria for enrollee selection are not delineated; the number of students and types of students are not identified; evaluation indices are lacking.
2. In some cases the proposals show the need for more extended and careful review and analysis and for technical assistance to upgrade their conceptualization and their content.
3. Although the City of Boston contains 20%–30% of the target population of the state which is receiving new emphasis and concern under the Vocational Education Amendments of 1968, public and private institutions in the City of Boston have been allocated only 7% of the $6.7 million available for programs from 1970 Federal funds, exclusive of allocations for administration and exemplary programs. In general this continues the prior pattern: The City of Boston received annual allocations from Federal vocational education funds in the past

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[1] Joseph S. Slavet and Melvin R. Levin, "Preliminary Evaluation of Public Vocational Education in Massachusetts, May, 1970.

equivalent on the average to 2%–3% of the total.[2] In some respects, the low proportion allotted to Boston reflects the failure of local initiative in pressing for an appropriate share of Federal assistance and in developing proposals worthy of approval.

Less than half of the Boston allocation is being handled by the public schools. This reflects a by-passing of the local public system of vocational education in favor of nonprofit institutions to meet the training needs of the disadvantaged. The State Division of Occupational Education seems to have given up hope of stimulating improvements in Boston's vocational education system[3] through local public channels although the needs of the central city are critical and the gap between requirements and existing programs is wide. For example, Boston Trade High School for Boys, the city's major institution for vocational preparation of boys, is operating a 700–pupil school at 60% capacity. The dropout rate at this institution is 30%, one of the highest of any vocational school in the country, while its average daily absentee rate is about 19%.[4] Enrollments in Boston's vocational programs lag far behind need, the offerings for girls are limited in variety, and except for such promising innovations as the Boston High School's work study program for the disadvantaged, existing school vocational programs fail to give high priority to persons with academic, socioeconomic and cultural handicaps.

4. There is evidence of insufficient attention being given in the program plans to the rapidly growing Puerto Rican population in the state. As far as can be determined, only one program (in the experimental and demonstration category) has been designed to meet the special needs of this relatively neglected target group.

5. The 1968 Amendments (PL 90–576) seek, among other things, to use Federal assistance as a catalyst for stimulating greater state-local efforts in providing vocational education for disadvantaged youth and adults or redirecting existing programs into new high-priority channels; it does not appear that the state-local overmatching characteristic of traditional vocational education programs will extend to programs for the disadvantaged, particularly since many of these are to be implemented by non-public agencies, e.g., as A.B.C.D. has done with a number of private agencies).

INFORMATION SYSTEM DEFICIENCIES

Rising concern at Federal and state legislative and administrative levels about the nature and state of manpower information and about the importance of evaluating manpower programs and services is beginning to stimulate greater activity in expanding the number and informational scope of discrete manpower reporting systems and in upgrading their quality. But Massachusetts, as is the case in most state-administered manpower information and evaluation systems, fails to measure up to the goals and intent of Federal manpower legislation and of Federal requirements for manpower planning systems. Not only do existing manpower information systems in the state generally fall far short of quantitative standards, but they do not meet performance characteristics considered basic for meeting user demands and for assisting user decision-making: viz.—capacity, quality, compatibility, timeliness, coherence, flexibilty, dependablity and economy.[5]

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[2] Massachusetts Division of Occupational Education, *Report on Allocation of Federal Funds Under Public Law 90–576 (First Year), Fiscal Year Ending June 30, 1970* (August 14, 1970), Exhibit B, pp. 3–7.

[3] ". . . our problems in the biggest city still remain. Boston's public school system just does not react. The private sector in Boston may become the focal point through which more Vocational Education programs will be established. (Annual Report of State Division of Occupational Education to U.S. Office of Education, 1968–69, p. 2.)

[4] See Disadvantaged Urban Youth in Specialized Vocational School Settings. An Initial Survey (December, 1969), by Research Coordinating Unit, Division of Occupational Education, Division of Research and Development, State Department of Education. (Report prepared under direction of Dr. Emma M. Cappelluzzo and Dr. Paula M. Rizzo. Boston Trade High School was one of seven studied as part of this report.)

Review of recent statewide and area planning submissions by Massachusetts under the CAMPS process and of annual planning documents transmitted by several state manpower agencies to Federal funding sources confirms the following conclusions of the CAMPS Secretariat in Massachusetts about the current condition of manpower ininformation.

1. There is a dearth of information required for effective planning purposes;
2. What exists is neither current nor in a usable form;
3. The State does not now have the resources to develop the kind of information system that would be required.[6]

Not only is the state's information base inadequate for planning and management control purposes, but it does not permit useful analysis and evaluation analysis of the broad impact of manpower programs on unemployment, underemployment, the public assistance caseload, etc.; assessment of the relative effectiveness of individual manpower programs in placing people in jobs; and evaluation of the efficiency with which programs are being administered.

Although there has been some improvement since the above statement was made, the identification of results, the measurement of costs and the determination of whether results justify costs are the weak areas of evaluation, mainly because of the paucity of reliable follow-up data on the subsequent employment and earnings experience of manpower program participants for comparison with that of non-trainees.

There is insufficient data available in the Commonwealth to undertake adequate and thorough planning in vocational education. This situation is further compounded by such factors as:

Limited collaboration and the lack of planned coordination between such data sources as the Research Coordinating Unit; Division of Employment Security; State Department of Commerce and Development; the U.S. Bureau of Labor Statistics; Division of Rehabilitation, and Community Action Agencies.

The Division of Occupational Education's inability to make full use of the limited data available through the Research Coordinating Unit of the Division of Research and Development;

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[5] Edwin N. Thomas, Some Fundamental Properties and Components of the Geographic Information System (August, 1967).

[6] Massachusetts, CAMPS Secretariat, "Proposal for a Department of Labor Demonstration Planning Project for the Development of a State Manpower Information System." (October 23, 1969), p. 1.

The lack of significant research and evaluation of factors that contribute to and influence the relative success of various methods, activities, and programs in vocational and technical education; and

The changes in federal reporting requirements and the time needed to adapt to new Federal reporting procedures.

KEY DIVISIONAL PROBLEMS

The preliminary conclusions relating to widespread weaknesses in Massachusetts' vocational education programs are confirmed by the letter of August 11, 1970, from the U.S. Office of Education rejecting Massachusetts' state vocational plan for the 1971 fiscal year. The principal thrust of criticism aimed at the state plan concerned the precise area in which we are concerned: program planning, justification and evaluation. In this light, a number of questions in the evaluation guide appear paradoxical since they inquire as to the extent to which the state succeeded in achieving the stated objectives of a plan previously rejected for its deficiencies in this area.

With respect to the state Division of Occupational Education and to the Department of which it is a component, many of the identified problems are directly or indirectly attributable to gross under-staffing in administration, professional and non-professional ranks, to the narrow orientations and assignments of professional staff and to under-utilization of personnel resources. Serious staffing shortages have been exacerbated by chronic difficulties in filling key positions. These were the major findings of a recent management study of the Division which recommended a new organizational and staffing blue print.[7] Although the study report was accepted by the State Board of Education "for discussion purposes only" late in April 1970, there has been no evidence of action to implement the recommendations. Responsibilities of the top agency position, the Associate Commissioner, are temporarily (September 1970) being handled by the Associate Commissioner for Federal Assistance until a permanent appointment is made to the top position.

At all echelons uncompetitive salary levels and shortages of funds to hire new staff are largely responsible for the Division's staffing problems. The situation seems to be growing worse. A year ago there were 16 vacancies in the authorized professional staff complement of 35, but as of September 1970, professional staff vacancies have increased to 20. Attrition has been most serious among highly qualified staff members who have been lured away by higher pay, greater promotional opportunities and more attractive working conditions. (It may be noted that the Division's offices are physically uninviting to staff as well as the visiting public.)

Over and above the particular problems of the Division, it may be noted that there are equally pervasive obstacles to high quality performance in the very nature of bureaucracy which provides insights into the nature and dimensions of the problems involved in upgrading the Division's performance. Organizations normally tend to be conservative, resistant to change and chary of either engaging in objective self-criticism or in hiring bright and occasionally threatening young talent.[8] (The creation of the Advisory Councils as independent evaluating units reflects an awareness of the need for objective outside assessment.) In this kind of agency environment, a large influx of fresh funds often leads to simple enlargement of existing programs with no real attempt to rectify past errors, a pattern which often disappoints the funding agencies. An inability to adjust to new demands and to modify obsolete programs seems largely due to inherent inertia—the expected lethargic or hostile response of older executives who cannot be taught new tricks. When indeed, staff capability is extremely limited as it is in this case, an agency often lacks the expertise required even to bypass the defective elements in the bureaucratic hierarchy through, for example, the careful selection and supervision of qualified consultants, by establishing special project staffs or even in a more limited sense, by hitchhiking on materials and models developed elsewhere in program planning and evaluation. Unfortunately, on this latter point it takes considerable ability to translate relevant federal-level and other research studies, curricula and approaches into forms applicable to state problems.

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[7] See Michael Najarian, ***Management Study of the Division of Occupational Education,*** **Report and Attachments (April 21, 1970).**

DEPARTMENTAL PROBLEMS

The bureaucratic weaknesses of the Division of Occupational Education cited above are symptomatic of the shortcomings in the parent Department of Education identified in the recent administrative study prepared by the Lincoln Filene Center of Tufts University for the Massachusetts Advisory Council on Education (MACE). The five major recommendations incorporated in the latter report, listed below, are almost identical with those made in this report regarding the Division of Occupational Education.

1. The Department must have authority to hire, retain, and promote professional personnel at salary levels that parallel or exceed those of some of the best public schools in the Commonwealth.
2. The Department must undertake a number of reforms with respect to its internal operations, especially in the area of administrative procedures, reducing duplication of effort and programs in certain areas, improving legislative and fiscal processes, organization of specific divisions and bureaus, training of personnel, and planning.
3. Strong efforts should be undertaken to increase the Department's service role to school systems and to minimize the function of the Department as a regulator and enforcement agency with respect to the public schools in the state.
4. Present regional offices of the Department should be strengthened better to deliver school services of quality directly to school systems; and at least two more regional offices (or service centers) should be created, with one serving the needs of the greater Boston area.
5. A program should be launched under the aegis of the Department calling for the establishment of educational goals for Massachusetts students, assessment of students, assessment of student

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[8] A discussion of this point, largely based on the author's experience with various state agencies in Massachusetts, is found in Melvin R. Levin, "Intellectuals and State Government," in *Community and Regional Planning: Issues in Public Policy* (New York: Praeger, 1969).

achievement with respect to goals, evaluation of schools, and accountability by educators and educational decision makers to the publics they serve for their performance with respect to students.[9]

This discussion of the talent problem suggests that it is a mistake to focus exclusive attention on the institutional weaknesses of the state occupational education-manpower system. There is the temptation to continue a precedent established in the 1963 (PL 88–210) and 1968 legislation (PL 90–576); e.g., tightening requirements for planning research, evaluation and responsive programming as prerequisites for new funding. Experience in occupational education as in other fields indicates that reducing the obstacles hindering progress by providing agency incentive and rewards to encourage reform may not be sufficient. What appears to be needed is a truly extraordinary effort on the part of extraordinary talent provided through new leadership to turn the agencies around and make the right things happen. If this change has not already been forthcoming, new carrots and stronger regulations are not likely to have the desired impact. This initial turnaround phase can only be successful by dint of the application of maximum, constant, vigorous leadership, pressure and intelligence. Later, after reform has been accepted and become routine, stabilizer and consolidator-type administrators will suffice.

The indispensable need for developing more in-depth talent in all state agencies (not only occupational education) was a principal theme of a study submitted by the consultants earlier in 1970 to the Massachusetts Advisory Council on Education.[10] A special section entitled "Staff Training and Career Development for State Employees" called for adoption of the Federal personnel development model by the state. The study pointed out that the success of the state government modernization plan due for full installation in April 1971 depends to a great extent on expanding the current meager supply of qualified staff. The report calls for preparation and implementation by each of the ten new secretariats, including the immediately relevant education and manpower agencies, of a five-year comprehensive plan for staff training and recruitment.

LACK OF ADEQUATE AREA OCCUPATIONAL PROJECTIONS

Another problem is related to the need for manpower and occupational projections and other types of data (including the identification and definition of job clusters referred to in various evaluation questions) required for rational determination of priorities as part of an effective program planning effort. Moreover, an adequate amount of useful data and analysis has not been forthcoming from the Division of Employment Security (DES), the state agency primarily responsible for this activity. Although DES has provided some specific occupational projections in cooperation with the U.S. Regional Office of Labor Statistics (BLS), this agency's research and statistics function suffers from the same chronic difficulties which afflict the

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[9] The Massachusetts Department of Education: Proposals for Progress in the '70's, Summary Report of a Study by the Lincoln Filene Center, Tufts University, Sponsored by the Massachusetts Advisory Council on Education in cooperation with the Massachusetts Educational Conference Board (June, 1970), pp. 7, 9, 14, 19, 21.

[10] Melvin R. Levin and Joseph S. Slavet, *Continuing Education in Massachusetts: State Programs for the 1970's* (Boston: Health Lexington Books, 1970), see especially pp. 103–109.

Division of Occupational Education: uncompetitively low salaries, unfilled jobs, inadequate research and statistics budgets, etc.

The expectation that some of these deficiencies would be corrected by the creation of CAMPS has not yet been realized. Close examination of the latest CAMPS report[11] reveals that, while it is useful as a general guide, it is clearly deficient in both timeliness and substance (e.g., state and area forecasts of the need for draftsmen) which could be fed back into planning of occupational education programs. Nor is this deficiency solely due to DES. Public and private health agencies, for example, have not been forthcoming with hard data forecasting manpower needs in that critical growth industry nor have employers, labor unions and other state agencies produced usable state and area projections of specific occupational needs in their jurisdictions.

At present, the Division of Occupational Education takes some comfort in the fact that it serves only a small portion of the potential markets since, under the circumstances, it believes that it is unlikely to train large numbers of persons for whom jobs may not be available after they complete their training. Nevertheless, the Division, along with other state agencies, is acutely aware of the need for solid occupational research and projections to guide its activities.

ALLOCATION OF RESPONSIBILITIES, COORDINATION AND DUPLICATION OF EFFORT

There are also serious problems related to the allocation of responsibilities, coordination and duplication of effort in occupational education and manpower training. A number of evaluation questions revolve around this issue. This report notes the obvious: coordination, etc., is generally poor in the public sector and knowledge of, let alone coordination with, occupational education efforts in the private sector is barely discernible. The continuing struggle over jurisdiction in vocational education at the post-secondary level as between the vocational schools (particularly the new regional vocational-technical schools) and the community colleges is the most glaring example of duplication and coordination failure.

Even more serious problems of duplication of effort and faulty coordination are characteristics of remedial vocational education programs both for youth and adults: Old and new agencies, public and nonprofit, have been engaged in a frantic scramble for federal funds. The chaotic administrative pattern resulting from this competition has left a proliferation of acronyms and program titles—MDTA, OJT, JOBS, CEP, NYC, etc.—which imply the ineffectiveness of predecessor programs.

The foregoing discussion by no means suggests that the Division of Occupational Education's obvious internal weaknesses are all that is wrong with the public manpower system in Massachusetts. On the contrary, the agency is also afflicted in its planning activities with troubles stemming from deficiencies in the exterior framework beyond its control. A major problem arises from the centralization of educational research activities in a separate Division of Research and Development (R&D) which was one of the recommendations of the Willis-Harrington Commission.[12] The Research Coordinating Unit (RCU) the vocational education research arm of the R&D center, has tended to allocate most of its attention, limited staffing and financial resources to the area of public education which looms most important in terms of costs and enrollment—the elementary and secondary schools. So far as the Division of Occupational Education is concerned, the hoped-for harvest of research, useful program planning and related activities has yet to be realized from the RCU. There are some indications that the restricted output of data may be related to the sensitive nature of some of this information. This hypothesis, however, can only be verified by an intensive audit.

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[11] *Massachusetts, Comprehensive Manpower Plan, Cooperative Area Manpower Planning System* (CAMPS), Fiscal Year 1970.

HOPE FOR FUTURE?

The establishment of the two new Executive Offices for Educational Affairs and Manpower Affairs represents one of the few grounds for optimism with respect to the evaluation guide's query regarding prospects for "a major breakthrough" in the field in the next two or three years. Plans call for higher salaries and a built-in reporting, research and evaluation system in component agencies that currently exists in only rudimentary form. But, as mentioned earlier, the success of state agency reorganization depends on leadership and staffing patterns. The keys to bold change, however, lie in taking full advantage of existing opportunities to provide the Division with new fresh leadership and to recruit an adequate number of qualified creative staff. A corollary to these basic needs is that the administrative and professional staff of the Division shift its focus away from passive, regulatory roles to the more promising strategy of positive leadership and guidance.

Special reference must be made to the fairly short period of time that has been available to the vocational agencies since the passage of the 1968 amendments. It is true that Federal regional headquarters staff have grown tired of pleas to wait another year or two for promised sweeping reforms to materialize and have become wary of allocating ever increasing amounts of funds which only seem to entrench recipient agencies deeper into their accustomed ruts. Nevertheless, the time factor is a valid excuse; in evaluating post-1968 programs it must be kept in mind that most are barely underway and it is far too soon to reach definitive judgments as to their efficacy. As was noted in the "Preliminary Evaluation Report,"[13] most of the program plans funded under the 1968 Amendments will begin to be implemented in the 1970–71 school year and evaluation of their impact will not be possible earlier than the summer of 1971.

CONCLUSIONS AND RECOMMENDATIONS

This study has reached three major conclusions:

1. The State Division of Occupational Education, partly because of understaffing and other internal weaknesses, is poorly prepared to play

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[12] Massachusetts, House, *Report of the Special Commission Established to Make an Investigation and Study Relative to Improving and Extending Education Facilities in the Commonwealth* (Willis-Harrington Report), House No. 4300, June, 1965.

[13] Slavet and Levin, *op. cit.*, p. 39.

an active leadership role rather than a relatively passive, regulatory role, in effecting major reforms in the State's fragmented vocational education system.

2. While it is too soon to draw definitive conclusions regarding the impact of the 1968 amendments, the increased Federal financial aid has helped to stimulate small but significant changes in occupational training directions and priorities in terms of new programs. However, there is little evidence of redirection in the pre-1968 amendment programs which accounted for over 80% of the more than $30 million in fiscal 1969 in state-local vocational education expenditures.

3. The Division of Occupational Education, together with the other public agencies which offer vocational education and training, show no promise of reaching their full potential; they lack the capability to deal in a coordinated, systematic fashion, with the state's sizable problems in this area.

SIX KEY RECOMMENDATIONS

Since the deficiencies in the system are so glaring, it is useful to conclude with a series of recommendations which, if implemented, could conceivably correct some of these deficiencies.

1. The major weakness of public vocational education in Massachusetts is on the administrative side. What appears to be lacking is a commitment to bring vocational education in Massachusetts abreast of some of the leading states in the nation. This requires:

a. An increase of 10 to 15 positions in the administrative and professional ranks of the State Division of Occupational Education.

b. Upgrading of salary levels for administrative, supervisory and professional positions in the Division to permit the recruitment and retention of highly qualified staff.

c. Priority to filling the Division's 20 existing vacancies in professional positions.

d. A nationwide search for selection of a dynamic, creative and experienced administrator to head up the Division of Occupational Education.

e. Priority to development of staff and consultant capability in the Division to carry out its new recommended role and particularly to undertake the critical task of program planning and evaluation.

2. Recodification of the state laws relative to occupational education to clarify ambiguous legislation and to sort out roles and responsibilities among agencies in the state's vocational education system.

3. Development of a solid base of public and legislative support for occupational education among high-level business and labor leaders, educators, parents, and universities, community and neighborhood organizations and promotion of close working relationships between public vocational education and representatives of such groups. The development of widespread support for vocational education must extend far beyond the establishment of local crafts committees, the major device for citizen involvement. One element of the advisory and supportive constituency structure for vocational education which requires careful scrutiny is the membership of the newly established Commission for Occupational Education.[14]

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[14] Established under Chapter 837, Acts of 1969.

4. Given the above commitment and necessary administrative resources, the Division of Occupational Education should begin to play a more active leadership and catalytic role, representing a shift from the traditional regulatory role in which the Division tends to wait for local initiatives. The new role is essentially a missionary one which includes providing technical assistance and consultation to local school systems, development of curriculum resources and guidance in local program evaluation. To perform this role effectively the Division should decentralize its operations in regional offices already established and/or planned by the State Department of Education for providing other educational services to local school systems.

It is also recommended that the Division develop a Training and Community Development component as an appropriate and useful means of stimulating and supporting local understanding, planning and operations in vocational and technical education.

5. The Division of Occupational Education should reevaluate the relatively high priority given to school construction in determining distribution of available Federal funds for vocational education. For fiscal 1971, an estimated $1,450,000 (about 20% of the total) in Federal assistance has been earmarked for construction of school buildings. In past years, the annual allocation from available Federal funds has ranged upward from 10% of the total. (In part, this increase is attributable to higher building costs.)

Special attention in allocating scarce construction funds should be given to replacing or reconstructing vocational school facilities in central cities of large metropolitan areas like Boston where regionalization of vocational education is very difficult or even impossible to achieve.

6. If the lack of administrative and program planning capability is the Division's major problem, close behind in the scale of need is the development of an adequate information system.

Priority should be given in the design of such a system for the following critical categories of manpower and occupational education information: (a) information on the universe of state and area manpower and training needs and problems, on current employment and social patterns and trends, and on anticipated relevant economic and social developments; (b) information on current and projected manpower and vocational education program resources. This should focus on developing data about characteristics of individual participants and on program operations; (c) information on current and projected unmet needs and gaps in manpower and vocational education services.

Once this key information is available—a complete inventory of present programs, public and private, plus an identification of existing and projected needs, gaps and problems—the following steps can be taken:

1. Preparation of a comprehensive action program within the broad manpower training-occupational education field looking toward rational allocation of priorities and responsibilities as between individual agencies and the public and private sector; and

2. Intensive review of Division of Occupational Education priorities and programs within its designated area of responsibility, including evaluation of program impact and effectiveness.

Supplementing the above recommendations and those contained in pages 125–132 are the following—

3. Role of Advisory Council on Total Education Programs. The view has been expressed by the occupational education member of the State Board of Education that the Advisory Council's responsibility is limited to the amount of Federal funding received under PL 90–576. In the case of Massachusetts, this amounted to $8,118,625, approximately 10% of the total expended—$81,971,845 for FY 1970. In the opinion of the Massachusetts Advisory Council this narrow view is inconsistent with the letter and the spirit of PL 90–576 specifically Section 104 (b) (1) (B) (C) (D) and Section 123 (a) (4) (5).

While not as precisely defined as might be desired, we interpret these sections as implicitly investing Advisory Councils with the responsibility for improving the administration, quality, diversity, and utility of the total vocational education programs in the states.

We believe this was the intent of the Congress in enacting PL 90–576. If legislative clarification of this vital responsibility of State Advisory Councils is required, it should be introduced at the next session. In our view the Federal inputs should serve as the yardstick for both measuring and maximizing all state vocational education programs.

4. Allocation of Federal Funds to States. A deterrent to long-range planning and a source of continuing uncertainty is the current procedure for the allotment of Federal funds to the States under PL 90–576. For the year under review Massachusetts did not receive its FY 1970 allotment until April 1970. Needless to say, the arrival of these funds so late in the fiscal and school years made it extremely difficult to effectively obligate them. Granted that this situation prevailed in other states and is unlikely to occur in the future, this time lag creates obvious planning and administrative problems at the operating level. A possible solution would be two-year appropriations by the Congress in order that both the Office of Education and the participating states may do more forward planning and allocate federal resources in a more rational manner. We recognize the legislative resistance that biennial funding will encounter but feel that it merits serious consideration.

With respect to the allocations to State Advisory Councils, the amounts to date fall far short of the 1% of the state's allotment with a maximum of $150,000 and a minimum of $50,000 envisaged in PL 90–576. (Currently the Massachusetts Advisory Council receives $42,667 annually for staff and operating expenses.) Until Congressional appropriations permit these modest financing levels to become a reality, we feel that State Advisory Councils should qualify for supplements to their present allotments from funds available to the Commissioner for research and training under Part "C" of PL 90–576. Applicants would be expected to submit detailed justification for such funds in conformance with the criteria under Sections 132 and 133 of Part "C". This would enable State Advisory Councils to more adequately meet their functional responsibilities by occasionally using the services of consultants to supplement "in house" staff competency for in-depth studies.

MICHIGAN

Chairman—Joseph V. Tuma
Ex. Director—Dr. Warren L. Lasell

ADVISORY COUNCIL RECOMMENDATIONS AND A RESOLUTION

The Advisory Council's numerous concerns and the suggestions made by educators and citizens at the Council-sponsored public meetings have led Council members to present a number of recommendations regarding vocational-technical education in Michigan. These are presented below. In addition, this section presents a Council resolution regarding occupational training programs.

ADVISORY COUNCIL RECOMMENDATIONS

The twelve recommendations listed below have to do with the three areas of concern listed in the first section of this report: program planning, program support, and program accessibility.

A. Program Planning

The need for better program planning is a concern of both Council members and a number of speakers at the public meetings. Consequently, the Council recommends that:

(*a*) the Department of Education develop an *overall plan for administering vocational-technical education programs* that will include a statement of priorities for different types of programs so that decisions regarding the expenditure of limited funds may be made more rationally;

(*b*) *procedures* be established so that personnel within the Division of Vocational Education can *better anticipate Congressional actions* regarding programs in and funding for vocational-technical education;

(*c*) *all occupational training programs* operated in the State be *approved and coordinated at a State level through the Department of Education* and its designated Divisions of Vocational Education or Vocational Rehabilitation; [1]

(*d*) greater *flexibility* be given by the Department of Education to *local school districts to plan and implement programs* in vocational-technical education; and

(*e*) *less centralized and more flexible procedures* be developed to *disburse Federal funds* from the State level to local.

B. Program Support

The need for additional support for vocational education is a concern of the Council. It therefore recommends that the State provide money for *membership allowance* and the *transportation* of students to area centers in the State.

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[1] See the resolution which follows these recommendations.

C. Program Accessibility

One of the sharpest concerns expressed by Council members is that all students have access to meaningful vocational-technical education experiences. Therefore, the Council recommends that:

(*a*) an increasingly greater *emphasis* be placed upon the rapid *development of area centers*;

(*b*) increased emphasis at the State level be placed upon guidance, counseling, and placement activities so that students who are vocationally oriented receive the benefits of these services. (In particular, the Council recommends that greater emphasis be placed upon counseling in Manpower Development Training (MDT) programs.);

(*c*) communities develop placement services which will insure that all persons who receive vocational-technical education will be placed in jobs following their work in vocational-technical programs;

(*d*) the State and local school districts place a *greater* emphasis upon *adult vocational-technical* education;

(*e*) that every *secondary school* in the State be a *part* of a *community college* district; and

(*f*) the *procedures* for funding *special needs programs* at the State level be made more *flexible* so that money for well-planned and deserving programs may be expended quickly.

RESOLUTION ON OCCUPATIONAL TRAINING

The resolution which follows was adopted by the Advisory Council during the meeting at Albion, April 3 and 4, 1970. The Council is concerned that substantial amounts of public money are being expended for occupational education in such a way that the State Board of Education cannot effectively fulfill its constitutional role of leadership, planning, general supervision, and coordination of all public education in Michigan.[2]

> With the proliferation of programming in occupational training which has developed in an attempt to solve the needs of a large segment of our population, it is the opinion of the State Advisory Council for Vocational Education that the State's educational institutions, both public and private, have a large investment in knowledge and facilities to properly utilize these funds in successful and economical programming.
>
> The State Advisory Council, therefore, goes on record in requesting the State Board of Education to take under advisement the recommendation that all occupational training programs operated in the State be approved and coordinated at a State level through the Department of Education and its designated Divisions of Vocational Education or Vocational Rehabilitation.

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[2] Article 8, Section 3 of the Michigan Constitution states: "Leadership and general supervision over all public education, including adult education and instructional programs in state institutions, except as to institutions of higher education granting baccalaureate degrees, is vested in a State Board of Education. It shall serve as the general planning and coordinating body for all public education, including higher education, and shall advise the legislature as to the financial requirements in connection therewith."

MINNESOTA

Chairman—Burleigh E. Saunders

Summary and Recommendations

The Minnesota State Advisory Council for Vocational Education acknowledges, in submitting this *Evaluation Report—1970*, it represents the opinion of this Council supported by observations, but unsubstantiated by the benefit of post-audit statistics on attendance or expenditures. This is made necessary by the deadlines suggested by the United States Commissioner of Education—October 1, 1970. The first full year of operation under the 1968 Vocational Education Amendments—Public Law 90-576—was the 1969-70 school year; statistical reports of the affect and effect of programs are not yet available.

Further, this Council recognizes implementation of Public Law 90-576 represents a major broadening of the activities and responsibilities of vocational education administrators, a fact suggesting an obvious need for more time before evaluation than has elapsed since the signing into law of the measure by the President of the United States. Contributing to this has been the lag between Congressional action establishing Federal funding for Fiscal Year 1970, which was delayed until April—the tenth month of the fiscal and eighth month of the scholastic year to be evaluated. Despite thse facts, this Council concludes and reports:

> **(1) That the vocational education in Minnesota is aggressively working to implement the intent as well as the fact of Public Law 90-576. This is evidenced in many ways, not the least of which was the commitment of state funds—in anticipation of, but with no assurances of getting federal dollars—to effect broadened programs during the entire school year.**
>
> **(2) That the suggested intent of providing planning to identify more specifically "people needs" is being carried out with resulting objective of estabilshing programs responsive to the basic charge of the law to serve individual "needs, interests and abilities . . . . in light of actual or anticipated opportunities for gainful employment."**
>
> **(3) That the vocational education system and programs in Minnesota serve well those individuals enrolled in programs—but that there is a need to further extend programs to serve more, if not all, people desiring from education the basic skills to provide, maintain and improve occupational competencies.**

In short, therefore, it is the view and report of this Council that Public Law 90-576 is affecting and effecting for the better programs for vocational education in Minnesota. A more critical evaluation must await 1971 when a accurate charting of performance, measured statistically by service to "people needs," is possible.

The Minnesota State Advisory Council for Vocational Education affirms the belief that the U.S. Office of Education is the appropriate agency to administer federal education programs and funding. However, this Council wishes to observe that efficient implementation of PL 90-576 in Minnesota is being handicapped by some administrative practices of the U.S. Office of Education. These include—

Demands for voluminous planning documents;

Unrealistice requests for innovative programs, each of which must serve the entire spectrum of elementary, secondary and post-secondary education;

Unrealistic calendar timetables for evaluation.

These would seem to go beyond the intent of the Congress.

Based on the above, there are no specific recommendations at this time.

MISSISSIPPI

Chairman—Robert D. Morrow, Sr.
Ex. Secretary—James L. Easom, Sr.

SUMMARY STATEMENT AND RECOMMENDATIONS

This evaluation has attempted to appraise in part the vocational education program FY70. There has been no attempt to present all statistical data available, but an analysis and interpretation of such data was made to determine in what direction programs are moving. It was clearly demonstrated in this evaluation that progress has been made in this State to reach the objectives of vocational education; however, there were some weaknesses identified.

It was noted that vocational education placed special emphasis on training the disadvantaged, handicapped, unemployed, and underemployed in the State as well as regular students. There was also special emphasis placed on reaching the dropouts who had left school and providing a program to prevent students from becoming dropouts. There was a strong move to provide vocational education in area vocational schools to students in all parts of the State, particularly in depressed counties, on both the secondary and post secondary levels.

Even though the above trends present a bright future for vocational education in the State some weaknesses exist which must be removed. One weakness of prime concern was the lack of sufficient funds to provide adequate facilities, equipment, and instructional personnel to most effectively operate the vocational education programs. There was also a need for more valid and reliable data concerning vocational education and manpower needs to better facilitate the planning and implementation of new programs. There was a definite need for continued emphasis to be placed on research in vocational education to provide new concepts and to evaluate the efficiency of those presently in operation.

This evaluation has served a useful purpose and it was felt that a continuous systematic evaluation should be conducted to insure the most effective programs possible.

RECOMMENDATIONS

Based on a careful review and analysis of the data on vocational education certain major recommendations were made.

It was recommended that:

1. The date for submission of the annual evaluation report to the U.S. Office of Education be changed to allow sufficient time for compiling and analyzing output data on vocational education programs in the State.

2. Federal appropriations for vocational education be made in sufficient time so that allocation of those funds to the States will be available for use at the beginning of the fiscal year.

3. Continued emphasis should be placed on providing programs to train disadvantaged and handicapped persons in the depressed areas and areas of persistent high unemployment to meet employment demands in all critical areas, and on providing a systematic evaluation and continued improvement of such programs.

4. Continued and stronger emphasis be placed on program planning and curricula development, in terms of higher standards and expected quality of output, by both State vocational-technical and local educational authorities for all levels of training.

5. That continued effort be made in the administration of the vocational education program to plan comprehensive programs beginning with: (1) occupational orientation to be completed just prior to the time that students enter an occupational training program; (2) a comprehensive high school vocational education program; and (3) a comprehensive post secondary vocational and technical program, in order that the total needs of vocational education may be met.

6. That emphasis be placed on training and recruitment of qualified guidance counselors to more effectively operate the occupational orientation program and reduce the guidance counselor-student ratio to one to 250.

7. Continued emphasis be placed on maintaining a close working relationship between State Department personnel who are concerned with the disadvantaged groups in developing effective teacher training programs (both pre-service and in-service) to better serve these groups.

8. The ancillary agencies and organizations and vocational education continue their cooperative relationship; and that efforts be made to expand and improve the services provided to the mutual advantage of all parties.

9. Efforts be continued to improve the image of vocational education by the State Board and its staff, State Advisory Council and its staff, and school administrators.

10. If funds become available under Part C of the Amendments, that emphasis be placed on conducting research on problems in vocational education through experimental and pilot projects.

11. Because of increased cost of providing quality education, State funds be used to supplement any school system that would lose Federal funds due to the new allocation formula.

MISSOURI

Chairman—William E. Clark

RECOMMENDATIONS

The recommendations formulated herein are based upon a review of the findings and conclusions presented to the Council by the Center for Educational Improvement as well as the observations of Council members resulting from visitation as well as review of program data and conferences with personnel of the Vocational Division, Missouri State Department of Education. The recommendations cited here encompass, and in some instances summarize, those recommendations which are reported under each of the Evaluation Goals within the body of the report.

GOAL I

State program planners must take the leadership in identifying the data that are required for the efficient management of the state program and motivating the appropriate agency to collect the data. Program plans should be formulated according to geographical regions or areas such as the six major labor market areas of the state. State program planners should analyze the labor market data and the needs of the youth and adults of the state for vocational education, and by relating these two factors to the current state and area programs, identify priorities and objectives for program development. These objectives should be precise and measurable and developed on both an annual and long-range basis.

Program emphasis stated in the State Plan should be identified with more precision and specificity in order to provide additional direction and guidance to program planners as well as to permit assessment. Increased attention should be given to specific programs and services for the disadvantaged and handicapped in order that the intent of the Vocational Education Amendments of 1968 is met.

In order to facilitate and improve program planning, evaluation, and especially management of the statewide Vocational Education program, all professional staff members of the various divisions, especially the Directors, should continue to be involved in program planning and management on a comprehensive statewide basis. In order to accomplish this goal, the positions of Director and Supervisor of Vocational Program Planning and Evaluation should be filled.

GOAL II

The State Department of Education should continue to cooperate and when possible provide leadership to the development of the CAMPS organization at the state level. Cooperation with the Division of Employment Security should be continued and expanded. Cooperation should be strengthened between the Special Education and Vocational Rehabilitation areas and the Vocational Division of the State Department of Education in planning and coordinating services for disadvantaged and handicapped individuals.

The publication *Vocational-Technical Schools and Programs in Missouri* should be maintained and up-dated each year to continue serving the need of informing the various schools as well as potential students concerning training available in the state.

The state program is well served by constantly directing public attention to the success of vocational students in the local and area vocational and technical education programs. This emphasis should be encouraged to enforce the image of vocational and technical education in Missouri. The continued support of the activities of vocational youth groups of the State is one viable means of enhancing this image.

The articulation of vocational education and general education could be strengthened by the formation of a committee of general and vocational educators to study and make recommendations that might aid in fostering this articulation.

GOAL III

It would appear that of the large number of programs in operation in the state, at least a few could be assumed to be functioning inadequately in terms of the intent of the Vocational Education Amendments of 1968. Implementation of the Vocational Division's plan for evaluation of one-third of the state's vocational progress during FY 1971 should permit better assesment of program effectiveness.

The development of new programs and the expansion of existing programs at the post-secondary and secondary levels and especially FY 1971 should permit better assessment of program effectiveness. should be continued. The lateness of the appropriating of Federal funds, which were quite limited, did not permit the extensive development of exemplary programs.

New directions have emerged in state management policies and procedures which should be continued and refined. All staff members of the Vocational Division, State Department of Education should become more involved in both the development and implementation of these emerging policies and procedures. Efforts should be made to (1) relate vocational programs to the needs of persons who require special assistance to successfully compete in the labor market; (2) give priority attention to programs serving areas of the state where concentrations of such persons occur, and/or such areas which lack the resources to develop vocational programs; and (3) direct additional efforts to ensure the development of new programs and the redirection of existing programs to prepare persons for occupations which indicate increasing job opportunities.

The state system of allocating Federal funds should become a management tool to accomplish the priorities and objectives of the State Plan. The criteria for determining the relative priority for local applications required by the Vocational Education Amendments of 1968 should be supplemented by additional criteria from the state level and incorporated into a new system for allocating funds.

The progress that has been made toward orientating the statewide program to meet the major priorities and program emphases of the Vocational Education Amendments of 1968 should be continued and even accelerated. One of the greatest restraints handicapping progress in this area is tradition which was established by the earlier vocational education legislation. Program administrators and teachers must be encouraged to adopt the philosophy and intent of the new legislation.

GOAL IV

Information available from the 1970 census should be used in checking the reliability of the population characteristics and this verified information used in future planning.

Missouri has made a significant start in the development of special programs for disadvantaged and handicapped students and should continue to expand these services. Special attention should be directed to the development of post-secondary and adult programs for the disadvantaged and the handicapped.

The State Department of Education is in a unique position to support and encourage the expansion of area schools and junior college vocational offerings. They should explore possibilities with the smaller school districts in the state to encourage greater participation in area school programs. The State Department of Education has a definite responsibility to coordinate the development of the more specialized vocational offerings at the post-secondary level to assure that there will not be undue competition for students between similar programs in the state.

In addition to placement information secured in September following graduation from high school, it is suggested that some procedure be established to ascertain the student and employer satisfaction with the outcomes of the programs.

GOAL V

There is a need to increase the level of validity and reliability of data describing existing employment opportunities and projection for the next five years. Specifically, the terminology between the Standard Industrial Classification, the Dictionary of Occupational Titles, and the Office of Education Code must be better correlated so that valid information is available for planning when using the Office of Education terminology. The Division of Employment Security must be encouraged to supply data classified into specific job categories, eliminating as much as possible the "Not Elsewhere Classified" category so that a more valid base can be obtained for the number employed and needed in each occupational area.

Until such time as the above procedures are refined to increase in validity and reliability of the data concerning job opportunities and projected employment needs in Missouri, the State Department of Education should be cautious in using the information obtained in making decisions related to program planning.

Missouri secondary school programs of vocational education emphasize training for a variety of jobs within an occupational area and should be encouraged to continue to develop and refine this approach to vocational education. The Vocational Division, State Department of Education, should continue to encourage the development and expansion of programs in the areas of identified occupational shortages. Efforts must be maintained to determine more effectively the existing and emerging manpower needs of the state and the occupational opportunities available.

Local schools should continue and expand their practices of providing youth with occupational information as well as exploratory experiences which will permit more realistic choice of training programs.

The Guidance Section of the Vocational Division, Missouri State Department of Education is encouraged to continue to seek out and make available to all schools the information concerning current and projected opportunities for employment as well as training in Missouri, the region, and the nation. In addition, schools should be encouraged to become much more active in the location of employment for vocational students and graduates as well as in assessing the job adjustment of employed graduates. It is further recommended that the requirements for vocational guidance counselors include work experience outside of professional education and/or professional experiences related to vocational education. Intensive, inservice programs should be developed by the State Department of Education to provide greater awareness for all counselors of vocational technical education and occupations and further, that special attention be given to counseling of minority groups.

GOAL VI

Local districts must be encouraged to conduct a comprehensive evaluation of their vocational program's effectiveness on a three to five year cycle, and the results of this assessment should be utilized in the planning and development of the vocational education program. Area considerations should also be taken into account as labor market needs and employment opportunities are assessed. Not only would the yield in terms of data from such a comprehensive appraisal be significant, but in addition the analytical process could contribute immeasurably to the insight of those involved in local evaluation.

The Vocational Division should implement its plan for evaluation whereby one-third of the local vocational programs can be assessed annually. It is recommended that local evaluation activities be coordinated to insure that unwarranted duplication of effort will not occur and that standardized data will be available for statewide evaluation.

It is further recommended that the position of Director, Vocational Planning and Evaluation, as specified in the organization chart for the Vocational Division, State Department of Education be filled and that the functions inherent in the position be carried out.

GENERAL OBSERVATIONS

Local supervision of vocational education in comprehensive high schools is frequently assigned to administrators who have little or no vocational experience and/or training. It is the Council's view that vocational supervisors and administrators should have more experience and/or vocational teaching experience. In addition, they must have delegated authority to work with the principal of the high school.

Relatively few persons of minority groups are enrolled in vocational courses at either the secondary or post-secondary level. Efforts should be directed towards enrolling more persons of minority groups in vocational curricula. Guidance counselors need special training related to minority groups which will enable them to develop realistic occupational objectives.

The Council has many concerns about the inadequacy of a number of local vocational education programs in Missouri. Concerns extend to such areas as the obsolescence of facilities and equipment, curricula, financing, vocational training needs of people, job opportunities, and the absence of appropriate offerings and enrollment.

The Council believes that present guidance and counseling services related to vocational education are inadequate for the state despite the fact that Missouri has more counselors than most states.

There were 163 comprehensive secondary school districts with guidance programs approved and reimbursed from vocational education funds in the 1969–70 school year. These counselors were assigned to 137,955 secondary school students in grades 9 through 12. This means that approximately 138,000 or in other words one-half of the secondary school students in grades 9 through 12, were not served by a counselor in an approved vocational guidance program.

In the approved guidance programs it has been found that, if all the counselors had all their time available for counseling with the secondary students, there would be only 2.25 hours in the school year to counsel with each of the youth. It is evident that there is little likelihood that any impact could be made in the life of a student with no more time available to the counselor than 2.25 hours. Since he must conduct the testing program, collect and disseminate occupational and educational information, work with the individual inventory, and do all of the other activities that are assigned which take away from his assigned counseling time, the Council estimates that the counselors have actually less than 30 minutes per youngster during the course of a school year to spend in counseling.

The Council finds that there are approximately 250 elementary guidance counselors serving in Missouri's elementary schools. Missouri has an elementary school enrollment of 766,103. Most of the elementary schools have no formalized counseling services. The elementary age child needs guidance and counseling. He needs information about himself, the work world, education, and the potential through vocational education.

It is a major concern to the Council that guidance and counseling has not been made available to elementary age children at even close to the minimum requirements recommended by the State Board of Education. It is a major concern that approximately 50 per cent of the high school youth do not have the benefits of an approved vocational guidance program. The Council is further deeply concerned that virtually no adult vocational guidance is available.

The youngsters of Missouri must be informed about the opportunities, the challenge, the intellectual and financial rewards available to those with well-developed vocational skills and knowledge.

It is recommended:

1. That the requirements for vocational guidance counselors include work experience outside of professional education and/or professional experiences related to vocational education.

2. That the Department of Education increase requirements for guidance program approval to one counselor for not more than 250 pupils in secondary schools.

3. That the Department of Education increase elementary guidance program requirements to one counselor for not more than 750 elementary students or an administrative unit.

4. That state funds be provided with the specific intent of providing guidance and counseling programs in all Missouri elementary and secondary schools.

5. That intensive, inservice programs be developed by the State Department of Education to provide greater awareness for all counselors of vocational technical education and occupations, and further, that special attention be given to counseling of minority groups.

MONTANA

Chairman—Mrs. Linda Skaar
Ex. Director—William A. Ball

SUMMARY AND RECOMMENDATIONS FOR PROGRAM DEVELOPMENT

The thesis of this report is that vocational education in Montana, as well as in the nation, has made some significant strides toward closing the gap between man and his work. We are aware of the several imaginative and promising activities going on in the state which will prove highly beneficial to the occupational readiness of the vocational education student, no matter what his age or aspiration.

It has traditionally been that education as a whole has been reluctant to make major changes. Yet piecemeal change proceeds slowly and often is limited to isolated parts of the system. Indications are now very strong that the traditional structure of the education system is no longer appropriate to meet the changing needs of students, industry and society. It is also apparent that pressures from outside the school system, such as a drastically changing technology and economy, social revolt, and skyrocketing costs of education, are placing schools at the brink of disaster.

The passage of House Bill 481 and the V.E.A. of '68 have opened up new avenues and broadened others for Montana to pursue in providing quality and quantity vocational education. In the light of these factors and those listed in the body of this report, the Montana Advisory Council recommends the following action to be taken by the responsible agencies and their staffs to strengthen vocational education in Montana:

RECOMMENDATION NO. 1

Local inservice training should be stressed by the State Board of Education through its proper supervisory channels (State Superintendent of Public Instruction, University Units offering vocational teacher education). Credentialing or certification of vocational teachers should be studied carefully by a working conference established by the State Board representing teachers, colleges preparing vocational teachers, Office of State Superintendent of Public Instruction, industry, and the Advisory Council for Vocational Education. This study should be documented and reported directly to the State Board for consideration and implementation.

RECOMMENDATION NO. 2

The Board of Education should direct the Executive Officer of Vocational Education to develop strong guidelines providing for vocational education to the disadvantaged and handicapped. These guidelines should include specific information relative to keeping the student in the regular class and providing him special services in that setting rather than isolating him in a *special* class. The Board, in contracting with any agency for construction of facilities for vocational education, should require observance of the state building code regarding the elimination of any architectural barriers to the handicapped. We further recommend that a program of recruitment and training of teachers for the disadvantaged begin immediately. Also, Congress should be notified that the language of the Vocational Education Amendments of 1968, earmarking funds for the disadvantaged, be amended to eliminate the *implication* that programs for the disadvantaged should be separate programs.

RECOMMENDATION NO. 3

To plan adequately on a long range basis for all citizens, it is necessary that more clarity be provided in the language of the V.E.A. '68 regarding occupational education below the high school level. It is recommended that Congress be notified that language in the present law and the rules and regulations for implementation of that law should be clarified as to the intent of Congress for the use of V.E.A. '68 funds for vocational education below the high school level other than under Part D Exemplary Programs and Projects.

RECOMMENDATION NO. 4

A vitally important factor in the operation of local vocational education programs which are adequate and meet the needs of people and industry alike is a strong, well-documented local plan for vocational education. We recommend that the requirement of such a local plan be implemented immediately by the State Board through the vocational education staff of the Executive Officer of Vocational Education and a guideline be prepared to direct the local education agency in the development of such a plan. Included in the plan should be such requirements as local advisory committees that are actively engaged in developing the plan, justification criteria for present program and step by step procedures for justification and implementation of new programs.

RECOMMENDATION NO. 5

Considering the vital necessity of complete, clear and readily accessible policy statements regarding vocational education for Montana, the State Board should direct the Executive Officer of Vocational Education to collect all past policy statements for at least the last ten years. Upon completion of this task a thorough review of these statements should be made by the State Board and the Executive Officer of Vocational Education (State Superintendent of Public Instruction).

With this review and a consideration of the new policy needs of vocational education a clear, concise and accessible statement of policy for vocational education should be adopted by the Board. The Advisory Council has committed itself to assist the State Board in this task in any manner the Board should desire and within the realm of capability of the Council.

RECOMMENDATION NO. 6

To have management information at the state office level to assist in proper management of vocational education, it is necessary to have accurate and meaningful data. The Council recommends that the Superintendent of Public Instruction be directed by the State Board to continue the development of the present data gathering system the Office has recently inaugurated and that the system be expanded to cover all phases of vocational education.

RECOMMENDATION NO. 7

The Council recommends that the National Advisory Council continue its efforts to inform the Congress of the United States of the specific needs in legislation for vocational education. Specifically, we urge they advise the Congress regarding the three problems listed below:

(*a*) The timing of availability of funds from the federal level to support vocational education makes it unrealistic and virtually impossible to plan adequately for vocational education as specified in P.L. 90–576. Funding prior to operation of programs would allow for much greater efficiency in planning and operation.

(*b*) We recognize the tremendous responsibility of the U.S. Office of Education in fulfilling their tasks relating to vocational education, but we recommend that action be taken to expedite the distribution to the states of rules, regulations and guidelines which are required for the development of the total state vocational education program.

(*c*) Montana is a large geographic state and small in population. This combination creates a scattered population that causes problems which are significant. We recommend that the U.S. Office of Education be advised to continue to develop program alternatives for such areas and that the funding procedures as outlined in P.L. 90–576 be reviewed and adjusted, taking into consideration the additional costs to a State in dealing with a potential vocational education population which is widely scattered.

RECOMMENDATION NO. 8

Montana has a number of agencies involved in providing vocational education. In the provisions of P.L. 90–576 it is well established that efforts of the several agencies be cooperatively coordinated to provide the best and greatest amount of vocational education opportunities possible for Montana citizens. Cooperative effort among many of the agencies has been commendable; however, we urge that the State Board continue to emphasize the importance of this effort, and that it direct the Executive Officer for Vocational Education to expand the cooperative efforts of the vocational education staff and their related agencies in an effort to avoid unnecessary expenditure and yet meet the needs of Montana.

RECOMMENDATION NO. 9

Vocational Education in Montana is not as widely recognized as other types of education. This occurs because of several factors, but one important reason is the lack of acquaintance by the general public and industry with Montana Vocational Education. To improve this image the Council recommends that the State Board expand, through the avenues available to it in the Office of the Superintendent of Public Instruction and other related agencies, the advertisement and explanation of Montana Vocational Education. Again, the Council plans to provide cooperatively any assistance it can in this important endeavor to lend dignity and support to vocational education.

NEBRASKA

Chairman—Lawrence McVoy
Ex. Director—C. A. Cromer

SUMMARY STATEMENT

The 1970 evaluation report of vocational education in Nebraska has been conducted and finalized in the interest of assisting the total vocational effort to fulfill more effectively the objectives and purposes for which established. The Council is concerned with the fact that some people who could benefit from vocational instruction are deprived of that opportunity because their educational system does not offer such courses.

Another concern is the image which vocational programs may have in some of our educational systems. The Council has specifically directed that all persons in a position to enhance the image of vocational programs should do so since this also may be a barrier which would restrict the availability of some programs to those who could benefit from the instruction.

It was the decision of the Council to withhold evaluation of the new features of the Vocational Amendments of 1968. Funding for these programs was so late that it restricted their development in the period for which the evaluation was conducted. At the same time, the Council strongly recommended an aggressive leadership and promotional effort, at both the state and local levels, to implement the special features of the new vocational legislation for the year following with the understanding that they will be given special consideration in the evaluation to follow.

A special strength of the evaluation report is considered to be the methodology used in formulation. The establishing of priorities was necessary because of the lateness of the evaluation guidelines. The Council staff gathered data which required special studies where data were non-existent.

Each Council member was then actively involved in preparing the report through assignment to special ad hoc study groups. The reports from each ad hoc group were presented to the Council proper before becoming a part of the overall report.

The Council was generally impresssed with the total vocational effort to date in the state. However, this observation was tempered with the realization that there is still a long way to go before filling the objectives to be served by vocational education. The recommendations made in this report are directed toward that purpose.

EVALUATION AREAS

GOAL I: STATE GOALS AND PRIORITIES SET FORTH IN THE STATE PLAN

1. Good progress has been made since 1964 in terms of equalizing expenditures in the various occupational categories, but, apparently,

we still have a long way to go in matching financing of programs with relative needs for trained people.

Allocation of funds for secondary, postsecondary, and adult vocational education programs should more closely approach the projected needs identified by the Nebraska Coordinating Unit for Vocational Education (1970a). Specifically, expenditures for Agriculture and Home Economics categories are disproportionate in terms of projected needs when compared with Trade and Industry categories.

Curriculum planners for postsecondary vocational technical programs should consult the deficiency clusters identified in Appendix A in determining priorities for new occupational offerings. Most of the occupational sections of Appendix A indicate that insufficient numbers are presently being prepared by the state's combined public and private occupational training effort. Some of the occupational clusters have no preparational programs currently in operation in the state of Nebraska.

2–3. For the most part, the accomplishment of objectives and program emphasis reflect a commendable total vocational effort for the state of Nebraska. This is especially creditable in view of the limiting factor of delay in funding which prevented implementation of the new features of the Vocational Act of 1968. Several areas have been identified which should realize a greater state-wide accomplishment in meeting future state needs. These are:

(*a*) Wage-earning Home Economics.
(*b*) Off-farm Agriculture.
(*c*) Special vocational needs.
(*d*) Health Occupations (secondary).
(*e*) Implementation of special instructional programs for new and emerging occupations.
(*f*) The total vocational adult education effort.
(*g*) Other new features in the Vocational Act of 1968, funded too late to realize any accomplishment.

4. Teacher education agencies which prepare vocational teachers should be more closely oriented to the need for vocational teachers in their specific occupational section. Promotion and recruitment activities, commensurate with the need identified, should be utilized, or additional vocational teacher education agencies should be approved to meet this need.

More comprehensive followup efforts should be conducted by all teacher education agencies to provide assistance in placement, to increase the percentage of those taking jobs in the area prepared, and to improve tenure in the field in order to make maximum utilization of this valuable human resource:

(*a*) All teacher education agencies need to devote a greater portion of their emphasis and effort in preparing teachers to work with the disadvantaged, the handicapped, those with special needs, and the cooperative concepts of their section.

(*b*) The identified opportunities in Health Occupations and the need for vocational programs in Health Occupations at the secondary, post-secondary, and adult levels would certainly justify the establishment of a special teacher education department to serve this existing state-wide need.

(*c*) The need for a greater state-wide effort in occupational counseling has been well identified by the Nebraska Coordinating

Unit for Vocational Education (1970b). Orientation to the world of work should be increased in the grades, throughout junior high, and at the senior high levels. A greater combined effort is required to assist students in making wise occupational choices, continuing their education, and developing their full human resource potential.

(*d*) Nebraska's effort in placement of students needs to be amplified further. This should be complemented by a conscientious followup of students by both the secondary and postsecondary institutions. The state has developed some reliable guides in student followup and assessment of local occupational opportunities which aid schools in satisfying these objectives.

(*e*) The structure of Educational Service Units in Nebraska, as established in 1966, was based, in part, upon a purpose of helping to extend the opportunities of vocational education to students who were denied the privilege. ESU's to date have directed only limited emphasis toward this purpose.

(*f*) An attempt should be made to eliminate duplication of effort and to make a more efficient utilization of funds on behalf of vocational counseling and guidance. It is recommended that a statewide master plan for occupational counseling and guidance be prepared which coordinates all activities from elementary through post secondary and adult levels. Special consideration should be given to the continuity between the levels and should specifically involve such resources as the Educational Service Units in fulfilling this recommendation.

5. The administrative structure of the Vocational Division should be continued under the present concept and philosophy.

A full-time director should be assigned for sections of Adult, Health Occupations, and Guidance Services with other supportive assistance to provide more adequate leadership at the state level necessary to develop these educational areas.

The maintaining of expertise in each of the occupational sections is deemed necessary to assure the depth and intensity of instruction in those areas. Competition between the vocational sections, however, is not in the interest of serving the total vocational need.

When working with public schools, consultants from the Vocational Division should be capable of serving all vocational sections, not just their specialized field.

GOAL II: AN EVALUATION OF THE HUMAN RESOURCES DEVELOPMENT FOR NEBRASKA

1. Efforts to strengthen the lines of communication between the education and business communities over the past year have been moderately successful. Therefore the Council recommends:

(*a*) These efforts should continue, with additional emphasis being placed on the establishing of local advisory councils, similar in personnel structure to the State Advisory Council.

(*b*) The evaluation of the extent of use of local vocational advisory councils leaves much to be desired. Only 26% of the local schools now use a formally organized citizens' vocational advisory council, (Dillon, 1970). The Council recommends that local schools should make a more extensive use of these lay citizen groups to assure that the total vocational effort meets the identified needs.

2. The Council commends the State Board's leadership efforts in regard to the collection and dissemination of data relative to the school systems in Nebraska; the Council also commends the Division of Vocational Education for its efforts during the past year to enhance the working relationship with the Statistical Service Section, Department of Education. Even with these efforts, there appears to be some need to review the types of information collected and the distribution and use of these materials.

(*a*) Therefore, the Council recommends that the two divisions cooperatively work toward the establishment of a data gathering instrument that would be helpful to both the local educational agencies and the state offices in determining the services provided students as well as indicating their unmet needs.

(*b*) Further, the Council recommends steps be taken to require all local educational agencies to comply with the information requests on a scheduled basis and that appropriate funding be provided at the state level to insure an adequate data processing operation at that level, including funding for the collection, analysis, preparation, and distribution of data.

3. "Linkage" is presently playing a very important role in guiding the activities and directions of individuals and groups throughout the state. The Division of Vocational Education, recognizing this fact, has not only involved its staff in cooperative efforts with other groups but has also provided the leadership in bringing individuals and groups into closer linkage. However, the Council feels there is a need to insure against the fragmentation of these efforts.

(*a*) Therefore, the Council recommends that the Division of Vocational Education develop a schematic approach to the linkages that are being developed with various groups and that periodic evaluations be made to determine the progress.

(*b*) Further, the Council recommends that the Vocational Division continues its involvement in the CAMPS program at the state level and that it make its expertise available to local CAMPS groups on a consultative basis and/or through their visitations to local meetings.

4. The Division of Vocational Education should be commended for its efforts to enhance the "team approach" through its periodic staff meetings, and it should be further commended for its efforts to cooperate with and support other departments at the state level. However, the Council does not feel this effort has been as successful as might be desired.

(*a*) Therefore, the Council recommends the staff evaluate their leadership role in "selling" the total vocational educational program throughout the state with emphasis being placed on comprehensive vocational education programs, geared to the educational needs of the students and the labor force needs of the community.

(*b*) It is further recommended that a more extensive staff inservice training program be provided, emphasizing methods used to identify individual community needs and the various approaches staff members might use in encouraging a comprehensive vocational education program to these communities.

(*c*) Further, the Council recommends that the Vocational Division make a continuous self-evaluation with respect to its effectiveness in establishing vital, on-going programs throughout the state.

(*d*) The Council recommends the Vocational Division develop guidelines for the implementation of early admissions for those secondary school youth who have special interests and/or abilities or needs for vocational education.

5. The Council recommends that all persons working in the field of education, from the State Board to the local teacher, take every opportunity possible to enhance the image of vocational education. Education for the occupations should be conveyed as career preparation at all educational levels. In particular, educational leaders at the local level, the teachers, administrators, and counselors should amplify the fact that one of the great strengths of this nation is found in the dignity of work.

6. While the Vocational Education Division has made an effort to identify the counselor-oriented vocational guidance and counseling activities found in Nebraska secondary schools, and while this department has recognized and promoted the role of the vocational education teacher as a vocational counselor, there is little evidence to show the actual in-school relationships between the two departments—guidance and vocational education. Further, there appears to be no significant effort made to evaluate the part-time and summer employment experiences performed by counseling staff and their relationship to vocational guidance.

Therefore, the Council recommends that a more indepth analysis be made of the following:

(*a*) The K–12 guidance and counseling programs in the state and the degree to which they collect and disseminate occupational information, post-secondary educational opportunities, etc.

(*b*) The "world of work" experience of counselors and its significance in preparing them to work with youth.

(*c*) The recent "world of work" experiences of vocational education teachers and/or any other relevant experience that would enhance their ability to communicate with youth regarding occupational opportunities, labor unions, etc.

7. Although the majority of the school districts in Nebraska have system-wide testing programs in the area of achievement and/or intelligence testing, a recent evaluation by the Nebraska Coordinating Unit for Vocational Education (1970b) indicates little emphasis on vocational interest and aptitude testing. Further, a recent shift in emphasis of one or more of the federally funded programs could increase the amount of testing monies available to the school districts.

(*a*) Therefore, the Council recommends that local schools prepare a sequential approach to the development of a cumulative vocational file on a student from K through 12, based on accumulation of test data.

(*b*) Further, the Council recommends closer correlation of all agencies to assure that the program is published, communicated to counselors, and supported.

GOAL III: EFFECTS OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 UPON THE TOTAL VOCATIONAL EDUACTIONAL PROGRAM OFFERING IN NEBRASKA

1. The greatest impact of the Vocational Education Amendments of 1968 upon the state to date has been in administrative aspects not in changes in type of program. The Council recommends that consideration of new programs started, changed, or terminated as provided by the Amendments be excluded from this year's evaluation because of the lateness of funding for new provisions of the Vocational Amendments.

2. The Council specifically commends the "breakthrough" achieved during the past year in providing more flexibility for vocational industrial preparation of teachers. This action was significant because of scarcity of qualified teachers who could meet both the academic and occupational requirements. Prospective industrial teachers may now receive credit for occupational experience and previous systematic instruction toward a baccalaureate degree and vocational certification. The cooperation of more educational agencies is encouraged, together with increased efforts in communication of the new concept and recruitment efforts to meet the need for teachers are identified in Appendix B.

3. There should be a greater acceptance of responsibility by local school administrators in meeting specific educational needs of students who are not benefiting from the conventional educational offering. Administrators should use their leadership to identify the needs of these students and to bring about the development of curricula to overcome these educational deficiencies. The prevailing objective should be to aid each student in developing his full potential and to provide each with a saleable skill so that he will become a contributing member of society.

4. It has come to the attention of the Council that a number of schools have not participated in vocationally approved programs because of the burdensome task of preparing a local vocational plan. Some progress was made in this direction for the fiscal 1971 plan. The Council recommends that further simplification and consolidation of the local vocational plan be continued with a concern for especially relevant input which can be measured toward state goals and objectives.

5. Local educational agencies are badly in need of assistance in designing educational programs to serve the disadvantaged. The stipulation that 15% of the total state allotment be used for the disadvantaged has resulted in an inefficient use of funds for the period involved. Local educational agencies must exert a more concerted effort to identify this segment of their student population and design programs to meet their needs.

   (*a*) Local educational agencies should also solicit additional assistance from the State Vocational Division and documented research studies in designing programs, curricula, inservice education, etc. to meet this specific stipulation.

   (*b*) The limitation of state and federal funds to meet the identified increased requirements in local program planning and specific categorization of purpose have limited the net benefit of the financial incentive. More state and federal funds are definitely needed to achieve the identified objective.

6. The Council also recommends more flexibility of interpretation for vocational teacher certification requirements in the *Nebraska State Plan for Administration of Vocational Education (1970d) and Guidelines for Vocational Education (1970e)*. The imperative growth of vocational programs in identified priority areas for the state could be curtailed because of well-intended quality safeguards.

GOAL IV: EVALUATION OF THE PEOPLE AND THEIR NEEDS

1. Local schools should make a more concerted effort in the followup of former students. The State Board has requested these data to be supplied by local schools in the completion of their local plan for vocational education. In the review of data submitted by local schools in compliance to this request, it is determined:

(*a*) Local schools should strengthen this educational responsibility in meeting individual needs.

(*b*) Local schools should follow the guide developed by the Nebraska Coordinating Unit for Vocational Education (1970a) as an aid to conducting a local followup of students which can be compiled as a state followup.

2–3. Refer to 2–3 under GOAL I.
4. Refer to 4c under GOAL II.
5. Refer to GOAL VI.

GOAL V: EMPLOYMENT OPPORTUNITIES AND VOCATIONAL SERVICES REQUIRED

1. Action taken by the Nebraska State Board for Vocational Education in initiating the state-wide occupational opportunities study was most commendable. The correlation of other sources of opportunity data, as provided by the State Department of Labor, has been a valuable assistance to vocational educators throughout the state. The statewide report on occupational opportunities should be continued in its present form. A continued effort should be focused upon improvement and refinement of data for future updating of this publication. The "N" column in the report should be continued with further explanation on the analysis and interpretation of data.

Comparisions should be made with the new Division of Employment, Department of Labor, data which will be available by December, 1970. These will be projected employment data for the state by occupational groups. The data prepared on occupational opportunities should be used with recognized reservations. Since it is difficult to assure a high degree of accuracy in each of the occupational clusters, the number of students being prepared should be fewer than the total opportunities identified. Care should be taken not to create an over supply of prepared persons in any of the occupational clusters.

2. Local educational agencies should make a more accurate assessment of occupational opportunities for the area they serve as input from their local plans. *Area Manpower Outlook Survey Data* and the *Nebraska Labor Area News*, monthly publications for the Nebraska Department of Labor, and the *Vocational Outlook Handbook*, should be among the documents used for determining the needs of the area in which communities are located. State level vocational needs data sources to be used by local communities in formulation of the local plan should include *Nebraska Labor Force Trends*, from the

State Department of Labor, Division of Employment, and *Occupational Opportunities in Nebraska* by the Nebraska Coordinating Unit.

The Quarterly Survey of Unfilled Job Openings (*ES–240A*), prepared by the Nebraska Department of Labor, Division of Employment, should be used as a reference by local agencies in focusing their occupational programs upon the area and state unfilled labor categories and any shortages therein.

The local and state educational systems should exert an increasing effort to provide programs to guide young people into areas of high vocational need and to prepare them for the identified job openings in their area and throughout the state.

3. Secondary schools should place more emphasis on preparing students to enter postsecondary vocational technical schools and providing the necessary learning experiences so they can successfully complete the instruction by:

(*a*) Providing more exploratory work in the prevocational and vocational courses.

(*b*) Combining vocational and general education so that education becomes more meaningful to the potential dropout and disadvantaged learner.

Public schools must evaluate and follow up the placement of students in order to justify a training program. If students are not being placed in their area of preparation in a justifiable number, then taxpayers should not be asked to provide the training.

As more women are entering the labor market, secondary and postsecondary schools should reflect a broader curriculum to meet the needs of the females in all major sections of vocational education.

Vocational program planning should take into consideration the new and emerging occupational areas.

4. The U.S. Department of Health, Education, and Welfare (1969) publication should become the basis for local vocational curriculum planning. Vocational course content should provide for job clusters or groups of jobs within a broad occupational instructional program.

5. The Council recommends a greater coordinated effort among training officials, guidance counselors, and those agencies or employers who have current labor market information. Continued progress towards improving and expanding vocational training opportunities in the future is necessary to assure an equality of educational opportunity for all students.

Greater numbers of persons in leadership positions will need to become involved in planning and budgeting processes for the purpose of improving, enlarging, and maintaining an adequate vocational training system in the state. This will become particularly important in the area of developing new and needed programs to fit the requirements of an ever-changing job market.

Enrollments in vocational education have grown steadily in the 1964–69 period, along with a corresponding increase in the total funds expended. 1964–69 enrollment data in Nebraska State Department of Education (1970a) indicates a shift to training in the growth occupations which is a strong indication that planning has been carefully following the needs of the labor market. This planning will need to be continued.

A study should be made to determine the availability of vocational training in our smaller communities where the establishment of a comprehensive training facility might be prohibitive. Each youngster is entitled to an equal opportunity for vocational training, regardless of his geographical location.

GOAL VI: SUGGESTED GUIDELINES FOR A STATE MASTER PLAN IN NEBRASKA

A. General Policy

1. The system which is ultimately designed and established in the state of Nebraska to provide education and training at the postsecondary level, but below baccalaureate degree level, must have as one of its major thrusts vocational technical education programs and services.

2. It was further agreed that support should be given to the philosophy that vocational technical education programs and services provided at postsecondary level should be the primary responsibility of these institutions rather than of institutions granting the baccalaureate degree.

B. Specific Consideration

1. The entire area of the state should be included in administrative areas.

2. The vocational technical schools at Milford and Sidney should become a part of an administrative area and operate as such, if advisable.

3. There should be a statewide coordinating council for vocational technical education, composed of one administrator and one member from each administrative area board, one representative from the State Board of Vocational Education, and a representative from the State Division of Vocational Education.

4. The State Department of Education, Division of Vocational Technical Education, needs to be empowered as the accreditation agency for all postsecondary institutions offering vocational technical education within the State of Nebraska.

5. All programs offered by the technical colleges must be approved by the Division of Vocational Technical Education, State Department of Education, to be eligible to receive state and federal funding.

6. It is recommended that the administrative areas to be proposed for postsecondary vocational technical education correspond as nearly as possible to the Nebraska Planning and Development Regions and that the existing technical college areas shall remain as a base for new area development.

7. The present rate of state aid ($15 per 18 week semester contact hours or equivalent) for area vocational technical college enrollees should remain as is. The present maximum levy of two mills for the vocational technical colleges should be continued for all funding obligations; this includes acquiring sites, erection of facilities, alterations, equipping and furnishing of school buildings to be used for classrooms and laboratories, office space, dormitories, dining rooms, and student activity facilities.

8. It is recommended that the Legislature establish and staff a separate section within the Division of Vocational Education to administer postsecondary technical education.

9. It is recommended that all technical colleges be governed by a locally elected governing board as provided in existing statutes.

10. All tuition charges throughout the state of Nebraska should be uniform, thus eliminating out-of-district charges.

11. Uniform out-of-state tuition charges should be established on the basis of per-pupil cost.

NEVADA

Chairman—Max M. Blackham
Ex. Director—R. Courtney Riley

The 1970 Nevada State Plan was completely revised due to the 1968 Federal legislation concerning vocational education. It places emphasis on human and financial support to promote better occupational education to meet individual needs. It requires local educational agencies to assess needs and develop annual and long-range plans. It provides more flexibility in fund allocations among the various disciplines. It provides for additional research and more innovative programming. It provides additional support for the disadvantaged.

The Council supports this approach which is in marked contrast to the traditional approach of supporting programs which met technical criteria but not "people needs". We appreciate the fact that changes create a burden on local education agencies; however, the Council feels that the past may be a prologue to the future and many problems on the educational scene may be solved by the "people approach".

We believe that the State of Nevada can support occupational training programs at all educational levels and we believe that all State agencies are in support of vocational education. If problems exist it is because of misunderstandings and lack of communication. In addition, we believe that most educators throughout the State are developing more awareness as to the growing importance of occupational education. We believe that the State must form an occupational education coordinating committee to insure that training is available to all and that duplication of both human and financial resources is not permitted to weaken the effectiveness that occupational education programs can produce for individuals and the State.

Due to the fact that the Council is just becoming operational and a thorough evaluation has not been effected, our suggestions and recommendations at this time do not reflect the more detailed appraisal we anticipate for next year of the administration and operation of the vocational and technical programs.

We will watch with qualitative vigilance throughout the coming year as to the improvement and changes which must be effected for Nevada to move into the Seventies as a State with a well-trained manpower supply ready to attract and maintain its business and industrial community.

At this time our recommendations are:

A. Establishment of an occupational education coordinating committee to avoid duplication of programming, waste of human talent and resources and securing the most with the education tax dollar.

B. Encourage a program of guidance beginning at the elementary school level and continuing throughout all educational levels. Steps must be taken to foster better attitudes toward work and to insure that all occupations have a reward for those who are skilled.

C. Surveillance of programs, services and activities of sub-baccalaureate programs at the Universities, the Community Colleges and the secondary schools to make certain that a power struggle for students, equipment, facilities and finances does not evolve.

D. Request the State Legislature to provide additional funding for vocational education based on documentation of need in an amount to at least match Federal allocations.

E. Encourage the continuing development of a rational system for planning, programming and budgeting by the Division of Vocational Education to meet State educational needs.

F. Encourage a plan of reimbursement that is equitable to local educational agencies and that assures them of their financial support.

G. Reimburse educational agencies for approved programs on a quarterly basis rather than at the end of the fiscal year.

RECOMMENDATIONS OF THE STATE ADVISORY COUNCIL TO THE STATE BOARD FOR VOCATIONAL EDUCATION

1. The State Board for Vocational Education should request that State and Local Plans for Vocational Education be developed in a clear concise manner which reflects planning for the yearly activities, the unexpected outcomes, and the follow-up or evaluation of same. The plans should be a management tool which is used throughout the year to give direction and enable administrators to provide more effective supervision and management over program operation and expenditure of funds.
2. The State Board for Vocational Education should recommend that each local district board appoint a general advisory committee to work in harmony with the State Advisory Council to effect a statewide advisory structure.
3. The system of data collection should be reviewed with the State Employment Security Department and procedures set up to obtain manpower statistics by county at the State level for use by both the State Department and local school districts in the development of their respective yearly plans.
4. The State Board for Vocational Education should reaffirm the legal requirement that the Advisory Council be consulted regarding any application, plan or proposal seeking Federal and/or State funds for vocational programs; regarding significant changes in statewide programming priorities; and regarding assignment of research projects to the Research Coordinating Unit, all of which have a direct effect on Nevada's vocational education.
5. The State Board for Vocational Education should require more stress on the development of vocational-technical programs along the lines of actual and projected employment figures so that the emphasis in training reflects availability of jobs.
6. The State Department should encourage counselors to continuously update information on jobs—local availability, starting salaries, average income, turnover, promotion opportunities, etc.—for use in realistically advising students.
7. The State Department should coordinate efforts to expand vocational knowledge and attitudes, orientation, testing, guidance, etc.,

throughout the entire educational sequence (K–14); it should also seek better means of integrating these aspects into the total curriculum.

8. The State Department should assist in the expansion of cooperative education programs featuring work experience.

9. The State Department should assist in the expansion of the cluster approach to vocational education.

10. The State Department should encourage operating educational agencies to provide for intensive work with minority communities to determine their particular vocational education needs and recruit members into programs designed to meet these needs.

11. The State Department should develop workable methods whereby closer coordination and integration of Adult Basic Education and vocational programs can occur.

12. The State Plan should be developed in cooperation with local district vocational administrators to insure articulation in the development of the State Plan and local awareness of the purposes, objectives and guidelines for local plan development.

13. The State Department should assign State staff members to facilitate local plan development in small enrollment counties. It is difficult for said counties with small administrative staffs to comply with complicated planning procedures expected of the large urban areas.

14. The State Director of Vocational Education should coordinate the overall planning of institutional programming in counties which have educational agencies at both the secondary and postsecondary levels to insure that programs and services are not duplicated.

15. More dialogue between union organizations and school administrators concerning the implementation and operation of part-time courses and/or programs must take place to meet their needs and gain their support.

16. The State Department should develop and make available for the use of local school districts a standardized form of a certificate of completion to be awarded a student completing a prescribed vocational course of study.

17. The State Department should develop and encourage the use of a plan of action whereby local vocational education administrators can make themselves and their programs better known to business, industrial and labor leaders.

NEW HAMPSHIRE

Chairman—Paul H. Goldsmith
Ex. Director—Andrew J. Moynihan

The ultimate goal of our educational system should be to provide our young people with the opportunity to realize their fullest potential and ability.

School systems which mark other goals as more important have lost sight of their primary mission. They do a disservice, to themselves, their community, their State, and to the children to whom they have a solemn responsibility. We suspect it may be the prime reason for the failure of our educational system to perform its basic function properly.

What other reasons prevail? We feel, as the National Advisory Council has pointed out, that they are *Attitude*, *Program*, *Money*, and, we add a fourth *Coordination*.

ATTITUDE

The very core of the problem lies with a national attitude that says vocational education is for somebody else's children, not mine. We are all guilty. It is shared by teachers, students, businessmen, labor leaders, administrators, and parents. We suffer from a national preoccupation that everyone must go to college. We have ingrained ourselves with the thought, no, the condition, that the only good education is one with four or more years of college. This is hogwash. No wonder we have failed so many youngsters.

We think the New Hampshire State Plan for Vocational-Technical Education is a good plan. We recommend it and that it be carried out. But of far greater importance is this crucial point: Even if the State of New Hampshire has the best vocational education plan, with the best schools, with the best equipment, with the best teachers, *it still would only be partially successful*. Why? Because it is caught in an inextricable web spun by our national attitude toward those second-class citizens—students marked for vocational-technical education. Our students are guided by counselors toward "a college degree" or they, themselves, make inappropriate choices, in attempting to stay first-class citizens, because they yearn for educational "prestige" forced upon them by social pressures. We must first break out of this web if we wish to have truly effective vocational-technical education in our State.

Recommendations

1. That the State Department of Education—Division of Vocational Education place on their staff a qualified director of public information. The specific duties of this office would be mainly directed toward preparing a statewide campaign to change the attitude of second-class citizenry held towards Vocational-Technical Education. This office would also prepare films, programs, speeches, and articles for T.V., radio, and the press, for statewide promulgation to bring Vocational

Education into perspective and give it the proper respect it deserves.

2. That respect for work and of working with your hands, pride and dignity in doing a good job, and the honorable position once held by craftsmen must be reinstilled in our State.

3. That school superintendents, vocational directors, and supervisors, seek more consistently the assistance which can be provided by their State and Local Advisory Committees.

4. That sufficient funds be made available as soon as possible by the State to develop the programs necessary to make the changes of attitude referred to above.

5. That *all* school principals, guidance counselors, and superintendents be informed of this report and that a copy of this report be placed in the hands of each and every one no later than November 30, 1970.

PROGRAM

School dropouts must be tracked and motivated *before* they reach 16 or the 8th grade. Statistics clearly show that a child who repeats more than one grade in elementary school has a 90% chance of becoming a dropout when he reaches age 16 or completes the eighth grade. Direct job-related instruction starting in the upper elementary grades should be available for these students. Early-Discovery programs in the lower grades should be activated and coordinated with the proper agency in the state to make them effective. Interest Inventories should be given to all school children in the seventh grade.

Consideration should be given to the comprehensive or regional type of high school. Students should have multiple choices within high schools. They should be allowed to move into and out of vocational-technical programs and to select mixtures of vocational-technical and academic courses. Each student who so desires should be taught some salable skill. Relevant part-time work experience should be included in all Vocational-Technical programs.

The basic, sound, simple fundamentals of reading, writing, and arithmetic must be taught first, *without exception*, in our elementary schools before any experimental, unproven, largely ineffective, and usually inappropriate method of teaching such as "new math," "look-say" spelling and reading are embarked upon.

Orientation to the world of work should be introduced in the early grades. Pre-vocational training, exposing students to the full range of occupational choices should be instituted in the junior high schools. This should include a continuing series of plant visitations by students, and school visitations by industrial representatives.

Recommendations

1. That the State Board take a fresh, hard look at the present educational programs and implement as many of the aforementioned suggestions as possible into our schools.

2. That the twenty secondary area vocational centers located strategically throughout the State be funded to provide ready access to any student wishing to participate in a vocational program.

3. That local Advisory Committees assume more leadership in encouraging studies and surveys related to employment needs, job preparation programs, placement and followup of graduates and that reports of such studies and surveys be distributed to the schools and to the appropriate community agencies and individuals.

4. That the State give consideration to the exploration of means of funding, initiating, and implementing new courses in the New Hampshire Vocational Technical Colleges at the time the need is recognized and apparent.

5. That the Vocational Technical Colleges investigate the feasibility of establishing a co-op program similar to that of Northeastern University and a decision be made to implement or not within a period of one year.

6. That in-service training programs for all school guidance counselors be made available in the State's twenty vocational centers. Here counselors could develop, a broader, fuller appreciation of the problems faced by the State, as regards Vocational-Technical Education. It would also allow play-back of information from them to the proper agencies to improve both the effectiveness of Vocational-Technical Education and education in general.

7. That a variety of sequential courses be made available by the university system to upgrade and expand vocational teacher education and training.

MONEY

Final costs to the Nation of educating youth for employment costs far less than educating them for a college they will never reach. But to prepare a student for a job costs more than to prepare him for college. Classes usually must be smaller, equipment and facilities are more expensive. A good job placement service is more costly than a good college enrollment service. Perhaps this added cost for vocational education is another major reason (or excuse) why most school districts turn away from it.

The allocations of more and more millions of Federal dollars to alleviate the pool of unemployed, untrained and out of school than to the problem of reducing the flow (from the schools) into the pool just doesn't make any sense. It is wasteful and inefficient. Our nation, and particularly our state, will never reduce its pool of unemployed until the Federal government gives as much attentiton to reducing the flow of drop-outs from the schools as it gives in trying to reduce the pool. Most of the Federal investment should be concentrated in paying the additional cost of vocational and technical programs of career-skill training (as compared with programs which prepare for further academic education) in high schools and postsecondary institutions.

The National Council has pointed out that the cures needed to reform our American schools will never come about if the Federal Government continues to invest nearly $4 in remedial manpower programs for each $1 it invests in preventive vocational programs.

It is not our purpose here to be didactic but it is obvious that the majority of the educational community—the administrators, the school boards, and the nation in general—have failed to really comprehend these essential, elementary facts: If we can keep our youth in the school system before they drop out in the pool, if the Federal and State governments will substantially support the additional costs of educating our youth for employment, then we believe the social, financial, and personnel costs of unemployment can be drastically reduced.

Recommendations

1. That the Federal Government make available to the states sufficient funds to carry out the State Plan for curriculum development,

teacher training, and pilot programs in Vocational-Technical Education on a planned basis. The Plan should include a gradual cutback by both Federal and State from the ineffective, crazy-quilted, remedial programs now being funded—redirecting them into the school system for vocational-technical education.

2. That the State Board of Education set up a merit rating system to reward teachers for the ability to teach and motivate their students rather than the rigid, unproductive system of reward by number and kind of degrees held. This could be "in addition to" the present system.

COORDINATION

We had referred earlier in our Foreword to the "ill starred galaxy of remedial programs" which the nation and State now support. Well intentioned as they may be, we suffer serious dislocations in proper coordination of programs, breakdowns in communications, and pyramiding duplications which generally reap ineffective results and staggering costs. The results remind us of a perforated lawn hose—plenty of water going in, a mere trickle coming out.

One is overwhelmed by the number of agencies, departments, councils, committees and groups involved with similar, sometimes identical activity. It is much like a huge pot of alphabet soup—you pull out ladle after ladle but you never can get one that produces the whole alphabet.

Recommendations

1. That the New Hampshire Vocational-Technical Education Advisory Council work with the New England Occupational Education Resources Center to effect dissemination of information for better communication, understanding, and coordination of the groups and activities concerned until such time when the State Department of Education in the Division of Vocational Education develops a public information program.

2. That all State Industrial Art programs and activities be part of Vocational-Technical Education. These valuable programs constitute in our minds the foundations for Vocational-Technical Education.

3. That copies of this report be distributed to those New Hampshire agencies and people working in or interested in Vocational Education in the hope that acquaintance with the contents of the report might lead to increasing improvement of the State's programs of Vocational-Technical Education.

4. That a separate Department of Education be established at cabinet level in Washington as recommended by the National Council and that the office of Vocational-Technical Education be established at the highest level in the table of organization. All training, both academic and vocational-technical, should be placed in the hands of the people most qualified to do it and who, with the States, have the on-going experience, facilities, and equipment to carry out this charter successfully.

Let us hope that Vocational-Technical Education will no longer be considered a dumping ground. If the results of this report accomplish only that one thing we will consider our labours an unqualified success.

NEW JERSEY

Chairman—J. W. Helmstaedter

RECOMMENDATIONS

Stemming from the findings and conclusions of the Council's evaluation are twelve recommendations to the State Board of Education. The first four of these recommendations are broad and are basic to the entire vocational education system in New Jersey; the remaining recommendations address specific functional areas or components, or specific programs. The recommendations are as follows:

A Comprehensive Long-Range Plan For Vocational Education In New Jersey Should Be Developed

The Plan should be developed by the division of Vocational Education, State Department of Education, for approval by the State Board, and should have the following characteristics:

It should project at least five years, and should contain easily understood and relevant objectives stated in terms sufficiently explicit to permit periodic measurement of progress toward the attainment of each objective.

It should be useful as a planning tool not only to agencies at the State level, but to local education authorities, setting priorities and acting as a guide to future needs.

The Plan should be comprehensive, and contain action steps planned to achieve the objectives it establishes.

The objectives and action steps specified in the Plan should be translatable into budgetary needs.

It should be based upon data, particularly labor demand and pupil need data, that are more accurate and precise than data now utilized in the State Plan.

The Plan's objectives and goals should be realistic, that is, they should be reasonably attainable within the resources that are likely to be available within the time period, and should make all reasonable use of existing, approved facilities, both public and private.

Additional resources required should be identified, likely sources of funds specified, and the Plan should include specific actions necessary to acquire the resources needed.

Recommendations In The Compendium Of Master Plan Committee Reports Should Be Carefully Considered And Those Approved Incorporated Into The Comprehensive Plan For Vocational Education

Incorporating all the approved key recommendations of the Master Plan committees into the comprehensive Plan would clarify the status of the compendium of the reports. It would recognize the efforts of the many citizens who devoted hours of effort to the work and would establish an official plan to guide the long-range development of vocational education programs in New Jersey. Because of the time which has elapsed, some of the recommendations require updating.

The Division Of Vocational Education In The State Department Of Education Should Develop A New System For Distributing Federal/State Financial Assistance, To Replace The Present Processing Of Individual Applications

The new systems for distributing funds should be based upon the following criteria:

The system should promote comprehensive planning for vocational education programs at the level of the local public education authority, and for institutions of higher education.

Only one application should be required annually from each local education authority.

Applications submitted by local authorities should include the information required by Section 102.60, Rules and Regulations of the U.S. Office of Education, with emphasis on the requirement for inclusion of a plan, extending five years from the date of application, showing how the vocational educational needs of potential students in the area or community to be served will be met.

The amount of detail required should be held to a minimum consistent with the need for factual information concerning substantive program issues.

Specific criteria for use in determining action on, and the funding of, local applications should be developed and published.

In addition to making known to each applicant the results of State action on his application, a compendium of such actions on all applications should be published and given wide circulation among interested agencies throughout the State.

The Division Of Vocational Education In The State Department of Education Should Undertake A Concentrated Program For Improvement Of Its Data Collection And Handling Capabilities

The State Department of Labor and Industry should be urged to seek and allocate greater resources to the support of a system to provide information, analyses and projections concerning labor demand and vocational education output. Improvements in the availability of data should be sought at the Federal, State and the local educational authority levels, with the State taking the initiative in providing assistance to local educational authorities in developing data systems to meet their planning requirements.

A conceptual base should be established for a coordinated, automated system which will be able to pull together, analyze, and disseminate relevant vocational education information to those who require it for planning, administration and evaluation.

Programs To Meet The Requirements Of Pupils With Special Needs, Especially The Disadvantaged And Handicapped, Should Be Expanded And Strengthened

More precise identification of the specific needs of this group, including geographic location of areas with higher concentration of pupils with special needs, should be the first step of a program of more adequate response to the needs.

The Established System Of Local Advisory Committees On Vocational Education Should Be More Fully Developed And Coordinated With the State Advisory Council

The State Advisory Council should work with the Division of Vocational Education staff in accomplishing this action, which should facilitate communication between local jurisdictions, and the State-level agencies.

County Boards Of Vocational Education Should Be Established In The Two Counties Where None Now Exist

This action should be encouraged by the State Board of Education.

Increased Emphasis Should Be Placed On Vocational Programs At The Elementary And Junior High School Levels

Not only should the Technology for Children and Introduction to Vocations programs be expanded, but opportunities should be sought for introduction of new, imaginative programs at this level.

Vocational Guidance And Job Placement Services Should Be Strengthened

Not only expansion but improvement of the counselor/pupil ratio and improvement of the preparation and in-service training of vocational counselors should be sought. Specific relationships should be developed in this area with the Department of Labor.

A Substantially Increased Public Information Program For Voctional Education Should Be Undertaken

This program should be spearheaded by the Division of Vocational Education, and should be aimed at parents, business, labor, industry, civic groups, parent-teacher associations, and taxpayers in general. The program should seek to make the public aware of the advantages of strong vocational education programs, and the benefits which can accrue to individual citizens and to the State's economic wellbeing.

Efforts At Coordination Of Vocational Education Activities With Other Interested Groups Should Be Expanded And Strengthened

This should be a continuing effort of all persons and agencies involved with vocational education at local and State levels.

The State's Programs For Preparation Of Vocational Education Teachers Should Be Expanded And Improved

These efforts should be based primarily upon cooperative efforts between the State Department of Education and the State Department of Higher Education. In addition, business and industry should be encouraged to provide increased help to both In-Service and Out-Service programs for teachers of vocational education.

NEW MEXICO

Chairman—Melvin A. McCutchan
Ex. Secretary—Mrs. Connie Jordan

The recommendations that follow are intended to encourage programs and services which will allow more people to profit from the present and planned offerings in occupational education.

RECOMMENDATIONS

In order to carry out the planned program of Vocational Education in the State of New Mexico, it is mandatory that predictable funding be provided at the Federal level. The unfortunate delay of at least eight months in finalizing the appropriation has a disastrous effect upon the development and promotion of Vocational Education in this State.

The Division of Vocational Education should accelerate its efforts to develop and implement a more effective information system which centralizes the information required for planning.

The system should provide means for obtaining and using facts which will better define and measure:

(*a*) Manpower needs, trends and projections.

(*b*) Skills, attitudes and basic education essential for effective work in modern occupations.

(*c*) Motivating influences on individual's occupational choices.

Everybody in the State needs to be more informed about Vocational Education needs and programs and plans for new directions and new opportunities. Special efforts should be made to inform employers that today secondary Vocational Education is more than the old industrial arts shop whose only relationship to jobs had to do with its teachers and promoters.

NEW YORK

Chairman—J. Walter Juckett
Ex. Director—John C. Briscoe

A SUMMARY OF THE ADVISORY COUNCIL'S CONCERNS

CONCERN I—THAT MANY PERSONS IN THE STATE, PARENTS, STUDENTS, EDUCATORS, EMPLOYERS, ARE UNINFORMED ABOUT THE NATURE AND VALUE OF VOCATIONAL EDUCATION

Comment

The Advisory Council is concerned about the great need to sitmulate more public awareness and information about occupational education. Because of an over-emphasis on preparation for college (which tends to de-emphasize preparation for work) many capable young people leave school each year unprepared for any kind of work. The Council is also concerned that many other young people leave college each year and enter the labor market without marketable skills. Lack of financial resources, lack of guidance and lack of motivation are most often cited as causes; the Advisory Council believes these are not primary causes, but rather are caused by a lack of accurate information about the nature and value of occupational education and the consequent failure of many young people to prepare themselves to earn a livelihood.

Recommendations

1. That educators at all levels throughout the State initiate and sustain dialogue on occupational education and its value with key persons from business, industry, labor, and government. The purpose of this recommendation is to encourage persons at the grass roots to focus their expertise and resources upon local concerns for better education.
2. That all of the secondary schools and colleges of New York State join in a campaign to inform the public of the opportunities for career preparation through occupational education that are open to secondary, postsecondary, adult and college students.
3. That the State Education Department launch an on-going, information program of the widest possible scope to tell the people of the State of the kinds of career preparation and employment opportunities occupational education can provide.
4. That School boards, Advisory committees, parent-school organizations, faculty organizations and service groups undertake a program to orient themselves fully about occupational education and its values to the educational program of every community.

CONCERN II—THAT OCCUPATIONAL EDUCATION IS CONSIDERED BY SOME AS THE CUSTODIAN OF THOSE STUDENTS WHO DO NOT "FIT INTO THE ACADEMIC SYSTEM"

Comment

Occupational schools have to provide satisfactory academic courses or they are unfair to students. Comprehensive schools have to be as interested in the future blue collar workers as they are in the future professional workers. The purpose of occupational education is not to serve as the custodian of those students who do not fit into the more general and supposedly "better" system. The Council considers occupational education, a full partner in education capable of bringing to the total educative process, many relevant ways for meshing liberal and occupational arts to expand the horizons and opportunities for the major portion of the student population.

Recommendations

1. The Regents redefine occupational education, through a position paper, as that aspect of the educational experience which helps students to discover and develop their talents, and to use them in working toward careers. The new definition should emphasize that occupational education embraces development of manual skills, but is not limited to them.

2. As a means of breaking down learning barriers created by the separate-subject, separate-teacher, separate-classroom pattern, widescale programs be encouraged in junior and senior high schools that will team academic teachers and counselors with occupational teachers for the improvement of all education.

CONCERN III—THAT TOO MANY COUNSELING AND GUIDANCE PROGRAMS IN HIGH SCHOOLS AND TWO-YEAR COLLEGES ARE DIRECTED ALMOST ENTIRELY TOWARD PROVIDING APTITUDE TESTS, ADVICE, AND HELP FOR COLLEGE-BOUND STUDENTS

Comment

The primary responsibility for preparing young people for a productive life rests with the educational system. A counseling and guidance system that tends to over-emphasize professional career preparation and college admissions criteria tends also to leave students and parents with the impression that education for any other goals is inferior education. The potential value of occupational education is seriously eroded where adequate, informed occupational guidance and counseling is lacking.

Recommendations

1. Increased flexibility in student programming be stimulated by school administrators, making possible instruction in occupational subjects for college bound students and acquisition of academic college-entrance requirements for vocational students.

2. Introduce occupational guidance into the early school years through new, dynamic programs that will inform and interest the students with industry and commerce as well as the professions, and which will help them match their aptitudes and interests to career objectives.

3. Redesign and reorient programs of guidance and counseling using more counselor aides and paraprofessionals who can relate and interpret occupational education programs to the local communities.

CONCERN IV—THAT OCCUPATIONAL EDUCATION EQUIPMENT, SUBJECT MATTER AND TEACHING METHODS HAVE TO BE KEPT UP TO DATE WITH THE CHANGING NEEDS OF PEOPLE AND TECHNOLOGY

Comment

In the past, occupational education has been concerned generally with training people for their first jobs. In an era when the nature of jobs changed very little over the years, changing equipment, teaching methods and subject matter was not an urgent matter. Even today, much of the emphasis of occupational education programs still has to be upon the preparation of young learners for their initial entry into the occupational job market. Also, much emphasis still has to be upon programs for adult students who need to acquire new, or update existing skills and knowledge. Because of the changing character of society and its technology in this era, it is necessary that the State of New York face the need to maintain its occupational education delivery system and all its components at a capability level that can match temporal work and social demands.

Recommendations

1. That the Regents issue a position statement, including statements from the Council, calling upon the State's schools and colleges to appraise and improve the status and timeliness of their occupational programs, including teaching staff, curriculum, and equipment.
2. That the State Education Department develop a set of guidelines for use by the State's schools and colleges in planning and implementing the process of updating.
3. The Legislature should act to provide continuing operational support at an appropriate level for New York State's system of occupational skill centers and vocational schools so they can be utilized fully.
4. The New York State School Transportation Law be amended to provide for student transportation aid between the home schools and area skill centers, at the same percentage as local district transportation aid.
5. The Legislature adopt a special formula for the construction of occupational education facilities recognizing the optimum 20 pupils per class capacity and the additional space needs unique to occupational education programs.
6. Increase State funding to support adult occupational education programs.

CONCERN V—THAT OCCUPATIONAL EDUCATION IN NEW YORK STATE OPERATES AT A DISADVANTAGE BECAUSE OF INEQUITIES IN THE STATE'S EDUCATION FUNDING LAWS

Comment

Reaching the goal of occupational education at any level, available within reasonable commuting distance for most residents of the State, will require capital construction and equipment, plus the development of secondary, adult and college-level programs and services. The

Advisory Council recognizes that occupational education is costly, but the Council is firm on the position that occupational education is needed by more persons than any other aspect of education. Occupational education has to be adequately financed. Examples of the need for improvements in the school financing laws are that:

The current building program formula makes no distinction between academic and occupational education as it applies to allowances for construction aid.

Under the existing transportation law, there is no provision for aid to the participating districts for the transportation of students to and from the occupational centers.

Major changes in the present two-year college law calling for increased State financial support are needed if the occupational-technical programs at the college level are to be sustained.

The present Occupational Education capacity for services to the unemployed and underemployed adults is underfinanced. Adult Occupational Education services should be doubled in the next decade.

Recommendations

1. The legislature should revise the State-aid formula making added provisions for funding occupational education as a special program that requires additional support above the general aid formula.

CONCERN VI—THAT FEDERAL AND STATE PLANNING FOR COMPREHENSIVE MANPOWER LEGISLATION HAS NOT GIVEN ADEQUATE ATTENTION TO THE VALUE OF OCCUPATIONAL EDUCATION IN MANPOWER DEVELOPMENT

Comment

The Federal and State governments can no longer be satisfied with merely training manpower for existing work. Government must actively nurture and develop the varied talents of the people by establishing an educational environment in which those talents can come to fruition. Through its manpower legislation study committee, the Council has examined the nature, intent and implications of the various federal comprehensive manpower bills that have been proposed. It has found no reason to quarrel with the underlying purposes, but it questions some implications that will effect the future of occupational education. For example, major legislative proposals known generally as Comprehensive Manpower Bills have provided no (or very little) role for occupational education at the state level.

Planning and implementing a comprehensive manpower development program for the state requires that all agencies involved cooperate and share responsibilities. Therefore, the Advisory Council will continue its studies of future manpower training proposals and the positions of all interested agencies.

Recommendation

1. The Council recommends reinforcement of coordination between the State Education Department and the State Labor Department in working out long-term programs to meet the changing manpower needs of our State.

CONCERN VII—THAT THE PRESENT REGENTS REGULATIONS FOR THE CERTIFICATION OF VOCATIONAL TEACHERS ARE TOO RIGID IN COURSE REQUIREMENTS AND WORK EXPERIENCE

Comment

As part of its total effort to study the practices, trends, and issues of occupational teacher certification in New York State, the New York State Advisory Council on Vocational Education established the Certification Study Committee on November 21, 1969. The report of the Study Committee was presented to the Advisory Council on January 28, 1970, and forwarded by it to the Board of Regents in August of 1970.

Recommendations

1. That the Regents Certification Regulations be redrafted. Certification regulations must be made flexible enabling persons administering occupational programs in the field to obtain the types of teachers they deem necessary to insure the success of their programs.

2. That admissions criteria at occupational teacher training institutions be restudied and revised allowing as many paths as possible for persons to prepare for, enter and advance in the occupational teaching profession.

3. That efforts be continued and expanded to improve techniques for the evaluation of all teachers, particularly during the period of probationary service. We urge continued efforts to improve performance evaluation following tenure.

CONCERN VIII—THAT THERE HAS BEEN EXPRESSED TO THE ADVISORY COUNCIL THE NEED FOR A REGENTS' STATEMENT OUTLINING THE ROLE OF PRIVATE AND PROPRIETARY INSTITUTIONS IN THE STATE'S OCCUPATIONAL DELIVERY SYSTEM

Comment

According to the Vocational Education Amendments of 1968, Federal vocational education funds may be used to provide vocational training through private institutions in cases where the institution can contribute significantly toward State Plan objectives; can provide equivalent training at lower costs than public institutions. The Council calls to the attention of the Regents that there has been expressed by persons concerned with private and proprietary vocational schools the need for a clear and specific statement of policy by the Regents explaining how the facilities and resources of private and proprietary schools and colleges are to be used in carrying out the purposes of the Vocational Education Amendments. In the position paper to the Regents, "Financing Occupational Education in New York State," the Council stated its thoughts for utilization of private institutions. (See Appendix C)

Recommendation

1. The Regents issue a specific statement on the role of private and vocational institutions in the State's occupational education delivery system.

CONCERN IX—THAT ORGANIZED LABOR'S REPRESENTATIVES NAMED TO THE COUNCIL HAVE TAKEN NO PART IN COUNCIL ACTIVITIES DURING THE YEAR IN REVIEW

Comment

There is need for reinforcing the Advisory Council through active labor participation so that the role of organized labor in the occupational education field can be fully understood.

Recommendations

1. That the Board of Regents give their immediate attention to the need to obtain the active participation of organized labor representatives serving as Council members.

CONCERN X—THAT THE BOARD OF REGENTS SHOULD UTILIZE MORE FULLY THE POTENTIAL OF THE ADVISORY COUNCIL

Comment

The New York State Advisory Council on Vocational Education is an active body of persons, highly qualified and willing to assist the Regents through advice and views on matters, not just limited to occupational education. Many of the policy concerns which the Regents must face are congruent with the expertise of Advisory Council membeds. For example, urban education, continuing education, rehabilitation, higher education, private education, etc., all interact with occupational education and members of the Council have specific qualifications to speak to such concerns.

Recommendations

1. Before the Regents prepare a position paper on occupational education, they call upon the Advisory Council to make recommendations.

2. There be scheduled a meeting or meetings between the Advisory Council and the Regents for the exchange of ideas and concerns.

NORTH CAROLINA

Chairman—William L. Hemphill
Ex. Director—Joseph R. Clary

RECOMMENDATIONS

1. That either the State Plan be organized so as to display goals, objectives, and priorities in an interrelated fashion, or that the state agency do so in a separate document.

2. That objectives be stated in terms of output measures, or be written so as to show input-output relationships.

3. That the Department of Community Colleges continue to study its resource allocation formula to assure that it reflects those factors assuring equality of opportunity for occupational education programs as well as demands of the labor market.

4. That long-range plans for program enrollment and output be supported by a coordinated plan for preservice and inservice education of professional personnel, so that program redirection and expansion efforts will be staffed by properly prepared personnel.

5. That the State Board of Education move towards rewarding efficiency, and effectiveness, and indicate priorities through modifications of its resource allocation formulas, both to local agencies and to institutions preparing professional personnel.

6. That the State Board of Education initiate a major effort to annually collect, analyze, and publish data interrelating public and private programs of vocational education.

7. That the 17 planning areas recently designated by the Governor be adopted by the State Board of Education and its agencies for planning and reporting purposes.

8. That the state agencies develop a long-range plan for State-level management, research, evaluation, exemplary programs, teacher education, cooperative programs, and comprehensive planning in order to assure effective leadership to local educational agencies in the implementation of their long-range plans.

9. That the State Board of Education develop and implement a system which will yield current and continuing information on the efficiency and effectiveness of its programs of occupational education in terms of target groups of people, target geographical areas, outputs from the system, and outcomes (interaction between outputs and the work force).

10. That the State Board of Education adopt and fund a Master Plan for the Evaluation of Occupational Education in North Carolina, and that the Plan include provisions for evaluating the effectiveness of the Board's agencies.

11. That sufficient agency resources be acquired and devoted to developing and implementing a method for comparing program enroll-

ments and output to present and projected job opportunities, by six-digit OE codes.

12. That continuing efforts to articulate general and occupational education at all levels in the State be encouraged by financial support.

13. That the development and wide distribution of a manual explaining the administration of occupational education in the secondary schools be given high priority in FY 71; the manual should include appropriate State Board policies and administrative procedures used in the state agency.

14. That strong emphasis be given to assuring that comprehensive vocational education opportunities be made available for all students in secondary schools.

15. That when major redirections of programs and/or resources are to be made, strong efforts for communicating impending changes should be made as early and effectively as possible to assure adequate planning by local educational agencies.

16. That the percentage of state support for secondary occupational education programs be adjusted as rapidly as possible in a manner which will encourage program expansion.

NORTH DAKOTA

Chairman—Arthur A. Link
Ex. Secretary—DeForest Rall

SUMMARY

The North Dakota State Advisory Council for Vocational Education has reviewed the history of vocational education in North Dakota and observed the happenings during the past year. Of major importance to vocational education in North Dakota is the development of the Master Plan for Vocational Education by a committee of one hundred people. This Master Plan Committee made a number of recommendations to the State Board for the improvement of vocational education. These recommendations are presently being considered and implemented.

The Council has found that several practices in North Dakota need to be improved.

1. Inadequate vocational guidance service is made available to students enrolled in the schools of North Dakota.
2. Identification of labor market needs and projected manpower trends needs to be expanded.
3. Present evaluation methods used in North Dakota are not supplying information that clearly indicates the effectiveness of our existing vocational education programs.
4. The State Board for Vocational Education is not presently supplying the general public and other state agencies with the information necessary to keep everyone posted on the current, up-to-date happenings in vocational education.

These are problems of major concern and should receive priority treatment during this fiscal year.

LIST OF RECOMMENDATIONS FOR IMPROVEMENT OF VOCATIONAL EDUCATION IN NORTH DAKOTA

1. It is recommended that the State Board put forth greater effort to alleviate the problem of inadequate vocational guidance service. The State Board for Vocational Education should make more monies available to the State Staff for the implementation of measures that will correct this situation.

2. It is recommended that the State Board for Vocational Education continue and expand its efforts to identify present labor market demands and projected manpower needs.

3. It is recommended that the State Board for Vocational Education require periodic, comprehensive evaluation of the vocational education program by each school district which receives funding for vocational education programs. It is furthermore recommended that

the State Board develop guidelines to be used by the local school districts in the evaluation of their vocational education programs.

4. It is recommended that the State Board give greater emphasis to the dissemination of information about vocational education.

5. It is recommended that more emphasis be placed on cooperative work experience in all vocational education programs.

OHIO

Chairman—Dr. Max J. Lerner
Ex. Director—Warren G. Weiler

FINDINGS AND RECOMMENDATIONS OF THE OHIO ADVISORY COUNCIL FOR VOCATIONAL EDUCATION

1. Vocational Education in Ohio enjoys the support of the public. State government has evidenced its support through the appropriation of $75,000,000 on a matching basis, for the expansion of vocational facilities.

The Advisory Council recommends that every effort be made to alert and inform Ohio citizens that capital funds are available on a matching basis for the expansion of Vocational Education and that every effort be expended to use these funds economically and in concurrence with an over-all master plan so adequately equipped buildings and facilities will be geographically located to best serve the needs of Ohio's youth and adults.

2. Operational funds for vocational education in Ohio have been increased 25% in Ohio during the past year, through additional State and Federal appropriations. This investment practically assures the development of a significant number of vocational programs in all sections of the state where local people will provide matching funds.

The Advisory Council recommends that local communities work together in organizing school units of sufficient size that broad vocational offerings will be available to youth and adults.

3. The Ohio Division of Vocational Education is to be commended for the development of a new State Plan which makes broad vocational programs available in all areas of the state commensurate with the interests and abilities of each individual.

The Advisory Council recommends local school officials join with representatives of industry, labor and agriculture in a study of employment needs and develop an occupational education program which will develop qualified, efficient workers. (In this report the terms "vocational education" and "occupational education" are considered synonymous.)

4. The Ohio Division of Vocational Education is to be commended for the new State Standards for the disbursement of capital funds, to be used in expanding our vocational facilities, on an economical basis. However, the present minimum of 1,500 students in the upper four years of high school for the allocation of construction, remodeling and equipment funds is not sufficiently large to justify a comprehensive vocational program, as it would make possible only about seven occupational offerings.

The Ohio Advisory Council recommends that serious consideration be given to our original recommendation that the minimum of 3,000 high school students, grades 9 through 12, should be part of the criteria, rather than the adopted 1,500. This change would result in a greater variety of vocational education opportunities being available on a more economical basis.

5. Ohio is a leader among the states in providing occupational education courses for students from culturally, economically and disadvantaged homes. These programs have been very effective in reaching high school students who are dropout prone, and who need occupational education, appropriate for their interests and abilities.

The Ohio Advisory Council recommends that this effort be expanded at an accelerated rate with the hope that the high school dropout rate will be greatly reduced.

6. Ohio is a leading industrial State and there is a growing need for training and re-training our out-of-school youth and adults. Changes in industry and the desire of workers for advancement makes a continuing program of education necessary. Present job skills must be upgraded and new skills learned. Therefore, adult vocational education programs are urgently needed on both a full and a part-time basis.

The Advisory Council recommends that provision be made for adequate facilities and programs for adult vocational education programs on a full-time, day basis when necessary; and on a part-time basis when that type of program will serve satisfactorily.

7. Joint Vocational Schools, Vocational Education Service Centers for the cooperating schools in the area, have demonstrated their ability to provide broad Vocational Educational opportunities on an economical basis. These jointures are apparently the best method whereby adequate facilities and competent personnel can be provided that portion of our population which resides in our less populous areas.

The Advisory Council recommends that the movement to create more Joint Vocational School Districts with a broad student base and a broad tax base be continued.

8. Preliminary results indicate marked success in the 36 experimental programs to provide work adjustment programs for the dropout prone 14 and 15 year old students. These provide school supervised work experience and career exploration programs whereby students see new meaning and return from education, and remain in school.

The Advisory Council recommends a large expansion of the work adjustment programs.

9. Statistics show a critical shortage of skilled workers in service occupations, especially in the health fields, and the employment potential is growing rapidly. Employment of graduates, qualified in this field, is practically assured, so larger enrollments can be justified.

The Advisory Council recommends that a task force be appointed by the Division of Vocational Education to assist with the expansion of Ohio's service occupation programs and encourage larger student enrollments.

10. Our youth organizations, DECA, FFA, FHA, OEA and VICA have proved to be a valuable asset in Vocational Education. Through them leadership and citizenship abilities have been developed, students have been motivated and pride has been fostered in the student's chosen occupation.

The Advisory Council recommends the organization of youth programs in all vocational centers with maximum participation.

11. A statewide study of local advisory committees by the State Advisory Council shows that breadth and depth of vocational offerings is related positively to the extent advisory committees are being used. Furthermore, citizens are interested in serving and anxious to be of help.

a. The Advisory Council recommends that our State leadership in Vocational Education make a more concerted effort to impress on school administrators and community leaders the need for advisory committees to keep vocational offerings in line with the needs of youth and industry, and

b. The State Division of Vocational Education should develop special guidelines to assist local school personnel in the effective use of advisory and special occupational committees, their functions, composition, interests and competency.

12. A number of factors have impeded the progress of the state in providing instructional programs which meet the training needs of the total manpower program. Some of these are:

Lack of one agency to direct or coordinate all occupational training programs;

Separation of state control of secondary and post secondary vocational technical education;

Conflicting interests of governmental agencies;

Restrictions imposed by State Licensing Boards;

Apprenticeship Qualifications;

School district boundaries;

Lack of understanding on the part of parents, school officials, and the public regarding vocational education.

The State Advisory Council recommends a State legislative commission or other group to study ways to eliminate these factors and make the best use of available funds to serve the needs of all Ohio youths and adults.

13. It is the observation of the Ohio Advisory Council that the present limited manpower and the organizational pattern of the Division of Vocational Education in the U.S. Office of Education are not adequate to give leadership and support to the programs evolving in the states in accordance with the goals established in the Vocational Amendments of 1968.

The Advisory Council recommends that the staff of the Division of Vocational Education in the U.S. Office of Education be expanded and that a reorganization be considered which would include leadership in the occupational areas as well as in the target group areas emphasized in the Vocational Amendments of 1968.

14. The State Advisory Council is proud of the Vocational Education Program on Ohio and how it is changing and expanding to meet the occupational educational needs of Ohio people of every race, creed and color. The interest and support of Ohio people has made this possible.

Our recommendation—"Keep Moving—Ahead."

These Findings and Recommendations are submitted to the Ohio Division of Vocational Education and the State Board of Education for consideration and transmittal to the Commissioner of Education, Washington, D.C., and to the National Advisory Council on Vocational Education. It is our hope that our efforts will be of help in making the dream of universal vocational education become a reality in Ohio.

OKLAHOMA

Chairman—A. Francis Porta
Ex. Director—Roy P. Stewart

RECOMMENDATIONS (GENERAL)

1. Because of the projected near future equalization of supply and demand for jobs at degree level, we urge strongly that under its agreement with the State Board of Education, the State Board for Vocational and Technical Education seek to improve counseling and guidance, by:

(*a*) Increasing the number of personnel so assigned to a higher percentage of schools;

(*b*) Reducing the ratio of students to counselors by working more emphatically with administrators and legislative committees on education and appropriations;

(*c*) By revising curriculum in institutions offering courses leading to counselor accreditation, to include more than the present single course on vocational education out of the 22 graduate hours required;

(*d*) By holding periodic workshops for both administrators and counselors, with granting of academic credit for summer workshops of reasonable duration;

(*e*) Planning a summer on-the-job program in industry for counselors, on a cooperative basis, if economic conditions improve over those existing in the summer of 1970 which preclude completion of a program for 70 persons;

(*f*) By considering seriously a training program for a category of guidance technicians at less than degree level (two years) specializing in the world of work, including vocational education, secondary and post secondary institutional training, manpower programs, apprenticeship training, OJT programs, and interview techniques, including follow-up reports on graduates, dropouts and defectors.

2. We recommend that a closer working relationship be established and developed by the Adult Basic Education section of the State Department of Education and the State Department of Vocational and Technical Education.

3. We recommend that instructional area cost studies be made that will correlate costs based on input enrollment, with the number of graduates available for employment in Oklahoma, and the out-migration factor, since it appears at this point in time that some of our most expensive per student courses produce fewer within state employables.

4. We recommend more intensive public information activities, including visual presentations in secondary schools and before parent groups, with more use of both print and electronic media. We suggest that, for various reasons, the public atmosphere now is more receptive

than at any time in the past to material regarding vocational and technical education.

5. We recommend more on-site team evaluations, such as that on health occupations training at the Tri-County Area School at Bartlesville, and offer assistance from Advisory Council members with specialized interests for inclusion on the teams. We suggest that results of such evaluations provide excellent regional and statewide material for publicity to enhance the vocational image.

6. While recognizing that salaries of administrators of area vocational-technical schools are set by elected board members of those districts, we recommend that the State Board, through its reimbursement authority, put an equitable scale on them based upon qualification, experience and tenure, to avoid possibility of friction with administrators of secondary schools that are feeders to the area system.

7. We recommend that through the follow-up OTIS study, and by any other practicable means, that placement information by specific job titles, and attitudes of both employer and employee, be secured to see that if in interfacing, labor demand and supply clusters were matched with training offered.

8. Without any desire to stimulate controversy but with the realization of certain facts, we recommend that the State Board, in consulation with the Board of Regents for A & M Colleges and Regents for Higher Education, join the Advisory Council in brainstorming the idea of converting an existing institution to a Residential Vocational-Technical School. These comments are offered:

(*a*) There is a public question of duplication of present facilities, instructional courses, and costs. A genuine in-depth study should be made of present and proposed utilization of state supported school facilities.

(*b*) The excellent record of Oklahoma State Tech at Okmulgee has proven worth of a residential Vo-Tech school. It draws primarily from the east side of the state. Our geography, distances, and dispersion of population is highly varied.

(*c*) There are residential state colleges at many compass points, some of them in the designated Ozarks region.

(*d*) There is a statistical decrease in demand for graduates in production agriculture at the junior college level.

(*e*) We are producing a surplus of teachers in general education in the face of the largest national demand decrease in a quarter century. This curtails the export of teachers which has been a factor for many years.

(*f*) Conversion of an existing institution is not closure, which would have greater political impact, while as a residential Vo-Tech school, neither the local nor state educational economy would be disrupted.

(*g*) The dispersion of state educational institutions, much of it due to political pressures and promises emanating from the Constitutional Conventional prior to statehood, deserves an overview in the light of changed times and conditions, overall State resources and tax burdens, and the state's needs in transition from a pastoral to a technical age.

(*h*) Ninety percent Federal funding of a demonstration residential vocational school is authorized by the 1968 Amendments under Part E of Title I, P.L. 90–576, but was not funded.

(*i*) We recommend also that some brainstorming be done cooperatively by all affected educational agencies, on establishing a statewide equipment pool, since occupational training equipment is a major cost factor in such training.

OREGON

Chairman—Howard R. Baker
Ex. Secretary—Mr. F. C. Bachman

RECOMMENDATIONS FOR ACTION IN CAREER EDUCATION

Because the Governor's State Advisory Council for Vocational Education is by law primarily advisory to the Oregon Board of Education which has a unique statewide responsibility for career education, these recommendations are directed to the Oregon Board. The intent is that on many of the recommendations the leadership action should be assumed by the Board per se. The Board may deem it appropriate to request specific action by others in regard to many actions indicated by the following recommendations.

The Council believes that these recommendations should be of immediate concern to the members of the Oregon Board of Education who were appointed by the Governor, and to the Superintendent of Public Instruction (the Board's executive officer) who was elected by the people of Oregon. In addition, these recommendations should receive the most serious and intensive attention and efforts of the professional staff of the Board including those with specific responsibilties in education generally.

An overview of the needs for career education in Oregon indicates a need for decisive leadership action by the Oregon Board:

1. To improve the attitudes of many kinds of people toward career education.
2. To cause the occurrence of major changes for the improvement of counsellor training and counselling at all levels.
3. To precipitate major change for improvement of career teacher education.
4. To achieve major increases in the financing of career education.
5. To improve two-way communication between the business and industrial communities and the schools.
6. To improve curricula for career education at all levels.
7. To get public schools to formally assume responsibility to develop employability in every student and to work with appropriate agencies to bring about placement (in education or employment) of every student leaving the school system.

Specific detailed recommendations are as follow:

1. The Oregon Board of Education should make herculean efforts to expand, intensify and improve career education programs from kindergarten through graduate school (including teacher education).

Justification.—Improvement of career education is the number one need in the public school system today. Orientation and exploratory programs are needed from kindergarten through the 10th grade. Career education cluster programs are urgently needed in the 11th through the 14th years. Degree programs in career teacher education desperately need expansion, change and improvement.

2. The Board should appeal to and insist that the Legislature earmark funds and establish the highest priority for the expansion, change and improvement of career education in Oregon.

Justification.—Experience indicates that priorities will be given to other and less important demands if funds are not earmarked. Legislation should stipulate that certain appropriations "shall" be spent only for designated career education programs.

3. The Board in addition to seeking *additional* monies for education, should concurrently strive for a more equitable allocation of existing monies between general and career education programs at every level of education.

Justification.—The future of the public school system rests upon more appropriate allocation of *whatever* amount of dollars is available. Unless the Legislature stipulates that certain monies "shall" be spent only for career education, previous experience indicates career education will suffer.

4. The Board should design and implement a strategy to get business and industry to influence the Legislature in regard to financing education, especially career education.

Justification.—The public as a whole has been placing upon educators a burden which is not rightfully theirs. Business and industry provide a great share of the tax dollars, and should influence the nature of education and the emphases for which tax dollars are spent. Career education has been calamitously slighted. More money is needed, along with changes in allocations of available monies.

5. The Board should take prompt and decisive action to precipitate major expansion, change and improvement in preservice career teacher education. Note recommendations 6, 9 and 12 following.

Justification.—The public schools, especially at the secondary level, in general, place undue emphasis upon college-prep instruction (much of which is relevant and much of which is irrelevant to career education) and this interferes with and inhibits a much needed emphasis upon career education. There is increasing awareness and considerable agreement among a few leaders (including both lay community citizens and professional educators); however, the exact nature of the problem and the promising, available solution have not been brought into sharp focus in the minds of many local boards, school administrators, counsellors, community college personnel, higher education representatives and others who should be taking action to expand, change and improve instructional programs at all levels.

6. The Board should expect and achieve far more active cooperation involving Oregon State University, Oregon Technical Institute and the community colleges in Oregon in the training of career education teachers (preservice and inservice).

Justification.—Vocational teacher education at O.S.U. is in some areas quite good; in others, sadly deficient. The major problem is lack of resources such as money, facilities, equipment and staff at O.S.U. Concurrently, some fine resources in facilities, equipment and manpower in other institutions are not being utilized for teacher education.

7. The Board should promote changes in teacher education to emphasize performance rather than the lock-step for four or five years procedure which has been so prevalent.

Justification.—There are many individual differences in teacher trainees. Each should be enabled and encouraged to proceed at his own pace—some to take longer and others less than the presently rigid degree programs.

8. The Board should encourage the designation and development of a University in the Portland metropolitan area as a center for teacher training including the areas of Business and Office Education, Health Occupations Education and Distributive Education.

Justification.—The present population center, existing programs (or in some degree the lack thereof) in other institutions, and other factors make this most desirable, feasible and efficient.

9. The Board should formally designate O.S.U. as the one institution in the State responsible for the training of personnel to serve as career educators in a broad sense (trained and qualified to serve as leaders and administrators in career education generally, not just as specialists in a given area such as Distributive Education or Home Economics). Concurrently, the Board should do whatever is necessary so that O.S.U. gives top priority and devotes adequate resources to do the job.

Justification.—Programs for training career specialists at O.S.U. and elsewhere are relatively satisfactory—but neither O.S.U. or any other institution in the State is doing an adequite job in training the career generalist. Neither O.S.U. or any other institution currently has adequate resources allocated for this purpose. We should strive now for one good center for this purpose rather than to create two or more poor ones.

10. The Board should assume leadership in planning and activating a program of inservice training for board members, administrators, guidance and counselling personnel at the elementary, secondary, community college and higher education levels to develop understanding and agreement upon an appropriate philosophy of education to meet the needs of today and for the 80's. The Board should maintain the active leadership role in consumating this recommendation (higher education should have a cooperating and supporting function).

Justification.—The current disproportionate emphasis upon college-prep, the need to improve the image of career education, the inadequate counselling services, the tendency to sometimes use career education as a "dumping ground", the tendency to counsel all the "bright" students into traditional four-year colleges and universities, the need for organizational, administrative and instructional changes all point to an urgent need. Needed changes in instruction may not occur until administrators and their boards decide to make these changes. Clear-cut goals and priorities must be a reality. There needs to be an awareness in the elementary grades. There is a philosophy and a substance which needs to be defined especially to meet Oregon needs, transmitted generally among boards, administrators and counsellors and diffused throughout the schools. There are emphatic evidences that too many people (parents, board members, administrators, guidance staff, teachers and students) still reveal the belief that career education requires primarily a "strong back" and that a superior intelligence or "academic talent" would be wasted in career education. All concerned need to come to recognize that many of the so-called career occupations today warrant and demand mental capacities as great as fields of nuclear science, physics, engineering, medicine, dentistry, law, ad infinitum. Equally significant, the potential for serving the needs of society, the potential for happiness and satisfaction of the individual, and the potential for monetary reward in career occupations today usually equals or exceeds those of many professions. Sequential development of career education at all levels should constitute the conceptual framework for the inservice program here recommended.

11. The Board should do whatever is necessary to bring about a major and complete change in the present system for selecting, educating, and training counsellors at all levels.

Justification.—Counsellors today are not adequately trained to do the job that is needed. They're not in tune with today's needs, and often constitute more of a liability than an asset. The shortcomings in guidance and counselling are of such a magnitude that a GACVE Task Force will be created to study the situation.

12. The Board should take aggressive leadership action to precipitate massive involvement of business, industry, agriculture, labor and others in public school affairs to influence the nature of the curriculum and to take a significant role in the instruction per se. This should include teacher education.

Justification.—There exists today a very serious lack of communication between the public communities and the professional educators (administrators and teachers) in all levels of education. This has resulted in too much emphasis upon college-prep work, a lack of urgently needed career education, much dull and nonsensical instruction, bickering, apathetic students, apathetic voters, and defeated budgets in all levels of education. Obviously the community and school personnel often are not communicating and sharing the valuable perceptions, information, insights and abilities which each has. Many teachers lack both knowledge and occupational competency in their teaching fields. Some, but not all of these deficiencies can be overcome by change and improvement in degree-granting teacher training institutions. The ranks of the world of work (both white and blue collars) constitute a resource which must be tapped consistently and indepth not only in advising the schools on *what* should be taught, but also in the actual teaching process in the classroom, in the laboratory *and* in the field, factory and office.

13. The Board should develop special task forces in career education to pinpoint needs for career curriculum development for the elementary, junior high, senior high, community college, adult and four-year college levels.

Justification.—There are some gross deficiencies, a lack of relevancy and a lack of articulation at every level. These handicap and penalize students to an extent which can neither be defended nor tolerated.

14. The Board should assign staff or contract with others to do the curriculum development most urgently needed as it is identified when the preceding recommendation (number 13) is implemented on a priority basis.

Justification.—Such curricula must be developed to facilitate the kind of instruction needed in career education. We cannot afford to let this go undone any longer nor can we afford to pay for many persons or agencies to duplicate this work.

15. The Board should continue, expand and intensify its current activities in developing and implementing the cluster approach to career education.

Justification.—It is not feasible or desirable to train at the secondary level for specific occupations or jobs. A student should develop a wide spectrum of job options. Many jobs require some similar or identical skills and knowledges. We are not able to exactly forecast what will be the nature of employment opportunities.

16. The Board should assign some of its own staff or contract with others to develop a syllabus on the philosophy and objectives of career education, and supply this as a guide to be utilized as is or with adaptations to every college training career or general education teachers in the State.

Justification.—The philosophy and objectives now being followed and taught are often grossly inadequate. Many elements of a philosophy and objectives which are more appropriate for the needs of today have been identified and agreed upon. These need to be refined, added to, detailed, put into written form and widely disseminated.

17. The Board should continue, expand, and intensify its current activities through appropriate advisory bodies to ascertain skills, competencies and knowledges required for job entry and progression.

Justification.—The present liaison with the Department of Employment and projected activities under the "Verify" system appear excellent as far as they go but they are inadequate. The Oregon Board, public schools, community colleges and institutions of higher learning need to know much more about job opportunities which will be available, the knowledges and skills which these jobs will require, where students go when they leave school, how they progress, apparent strengths and weaknesses in training programs and other factors which should be utilized to influence future career education programs. Career education has an inherent obligation to train for employment needs and opportunities which will be existent when the student is ready to seek employment, and course content at the upper levels should give due consideration to such opportunities. Obviously, such consideration is impossible without current knowledge of the opportunities. The importance of statewide manpower planning and cooperative effort with the Employment Service is a must in improving career education. There is need for a forecasting system to achieve greater relevance between career education and employment opportunities. Eventually, State reimbursement might provide an incentive for certain types of training.

18. The Board should initiate a systematic flow of statistical and other information from various career programs to the Board and to various advisory groups in order to facilitate more informed advice and decision-making on a continuing basis. This information should include progress reports on existing programs as well as the kind of information described in the preceding recommendation (number 17).

Justification.—This recommendation is based upon the evident need for the Oregon Board of Education, the State Advisory Council and other boards and advisory groups to be familiar with programs in order to make appropriate decisions and recommendations. For example, one must do much more than read the State Plan for Career Education in order to comprehend it. A management information system, including systematic means of gathering data and periodic staff presentations with appropriate visuals are minimum essentials. The data collection model devised at the National Center for Vocational-Technical Education (Ohio State University) is an outstanding model for data collection.

19. The Board should design and implement a plan to get every school district to officially assume responsibility for developing employability in every student. This should include accountability to the local tax payers and to the Oregon Board.

Justification.—School districts should be encouraged to formally, assume responsibility and take action to develop some degree of employability in every student, because almost every boy and girl (college-bound or other) will, during high school, and upon leaving high school have need to earn some money through productive labor of some type. State aid would serve as an incentive for school districts to fulfill this responsibility. Rather than developing employability for a single job or type of employment, schools should provide the widest possible range of options for each student.

20. The Board should design and implement a program intended to get every secondary school to assume responsibility to work with appropriate agencies to bring about placement of every student who leaves high school whether by graduation or otherwise.

Justification.—Traditionally, secondary schools have done a relatively excellent job in placing the college-bound student, compared to the virtually nothing done for other students. Respondents to the questions posed in the Self-Analysis phase of the study upon which much of this Report is based, frequently indicated the school did very little if anything for the non-college-bound student, that counsellors knew relatively little about placement opportunities for other students, that school personnel had no time allocated for this purpose, and that outside employment and placement agencies accomplished little if anything in this area. The solution must involve cooperative arrangements with State or Federal employment agencies. For example, such an outside agency might assign an employment officer to the local superintendent of schools. In most instances such placement would not be viewed as a permanent position, but rather as a stepping stone to additional education and/or employment.

21. The Board should intensify and expand its already laudable efforts toward long-range planning.

Justification.—Certain factors, such as inadequate and uncertain funding have seriously limited long-range planning. Planning needs to be systematic, intensive, and coordinated for all levels and types of career education programs and services involving the education establishment and other agencies and groups concerned with manpower. Clear-cut goals need to be developed and then an examination of the instrumentalities that exist to meet these needs in terms of schools and their organizational structure. Relationships of secondary schools, community colleges and four-year institutions should be considered. The applications of systems such as PPB, PERT and Delphi Techniques are desirable as well as development of a mechanism for effective interagency planning.

22. The Board should design and implement a plan for systematic follow-up of students leaving secondary schools and community colleges in the States (whether by graduation or otherwise) including the identification of why each student leaves and where he went. This can effectively be done on a sampling basis.

Justification.—One means of determining what student needs are not being met by existing course offerings at various levels is to observe what happens to students who leave the schools. Responses of persons in the ten Oregon schools involved in this study reflect a dearth of information here. There is need for a systematic and comprehensive follow-up system statewide—which should most logically be designed, implemented and coordinated under the leadership of the Oregon State Board of Education. The National Center for Research and Training in Vocational Education at the Ohio State University has developed a computerized approach which merits attention for this purpose.

23. The Board should preserve and enhance the current identity of career education programs and staff in all kinds of educational institutions and agencies and make the line of communication and authority from the Director of Career Education (or whatever the administrative head of the Department of Career Education is titled) to the Superintendent (or whatever the administrative head of the institution or agency is titled) as direct and short as possible.

Justification.—Cooperation between career and general education personnel is highly desirable; however, experience has proven that when career education programs and staff are unduly subordinated, career education programs deteriorate and are diffused. Communication about career education programs suffers unless the administrative head of career education communicates rather directly with the administrative head of the institution or agency. Experience in many states indicates deterioration of the status and image of career education when the line organization places one or more persons between the head of career education and the administrative head of the institution or agency.

24. The Board should initiate action to make the State Plan more a State of Oregon Plan, a more concise plan, a shorter and more specific plan, a more comprehensive plan. A "popular" version should be made and widely distributed.

Justification.—The present State Plan is so lengthy, obtuse, and filled with extraneous material that the usual professional educator, board member and citizen cannot or does not comprehend the Plan. More adequate State finances for career education would facilitate more state independence and precision in the planning process. The current plan, however excellent it might be, loses a great deal of its potential if it is not understood. The State staff now spend an excessive amount of relatively unproductive time and energy in development of the State Plan to meet federal requirements. Efforts should be made to bring the federal requirements closer to state needs in planning.

25. The Board should assume the key leadership role in designing and promoting a research and development center for career education. The Center should be an independent entity so situated that it will not be bound by the formal and informal limitations and traditions of existing instructional and supervisory programs.

Justification.—Existing educational programs have failed to keep pace with needs of Oregon citizens. Historically and philosophically it is apparent that research and development activities need some separation from established instructional and supervisory agencies if they are to be effective.

26. The Board should arrange for periodic, systematic, third-party evaluation of career education and teacher education.

Justification.—Experience and history have repeatedly and dramatically proven the inadequacy of most evaluation done previously. Evaluation should constitute the major bases for future programs. Self-analysis should be a part of the evaluation process, but much of the evaluation should be done by persons or agencies not involved in operation or supervision of the programs concerned.

27. The Board should negotiate even more specific written agreements with the public schools, higher education and any other institutions to which it disburses funds. It should expect and receive an accounting on what was accomplished with funds received accordingly.

Justification.—Quite frequently monies distributed by the Oregon Board are by law designated to be used to supplement rather than replace local funds. Career education programs may be penalized when the intent is not implemented. Today especially, the inherent principles of PPBS (Program, Planning, Budget Systems), and accountability for tax monies expended are of vital importance. Career education programs at all levels must be held accountable to produce results reasonably consistent with intent and objectives.

28. The Board should review the recommendations made by the Governor's Advisory Council for Vocational Education, determine which ones it will accept and implement, assign priorities, determine time schedules for action, and advise the Governor's Advisory Council accordingly. (January 15, 1971 is suggested as a reasonable date for such notification.)

29. The Board should annually advise the Governor's Advisory Council of its progress in implementing the Council's recommendations.

PENNSYLVANIA

Chairman—Dr. Wade Wilson
Ex. Secretary—Severino Stefanon

PROJECT GOALS AND RECOMMENDATIONS

The following is intended to identify and describe specific goals the attainment of which might be reached through the accompanying recommendations. The goals and recommendations are based on AVR's observations of the findings in this evaluation study.

1. *Goal:* Increase the percentage of high school students served by vocational education programs to 25 percent; to 40 percent; to 50 percent in the 1970's.

Recommendations:

Build new and expand existing area vocational-technical schools and programs; also appropriate comprehensive high school programs in light of needs of students in an area and realistic job opportunities.

Utilize many other types of programs, such as itinerant instructors, mobile shops, educational television, and new audio-visual devices and techniques, to reach more secondary school age students in sparsely populated areas.

2. *Goal:* Bring secondary vocational education occupational education program enrollments and completions into closer relationship with current and projected labor market demands.

Recommendations:

Intensify promotional efforts for program expansion in distributive education in area vocational-technical schools and comprehensive high schools to bring distributive education enrollments into more realistic recognition of labor market demands in distribution.

Intensify promotional efforts in cooperation with health institutions toward much greater program expansion to meet the increasing critical demands in health occupations. Add at least two State staff members to give the health occupations training program much higher priority.

Intensify promotional efforts toward much greater expansion in technical education programs to meet the persistent demands for technicians. Add at least one State staff member in this field to give technical education programs much higher priority.

Set up new and higher required standards for approving financial aid to business and office occupations programs (perhaps only cooperative programs) with a view toward limiting or even reducing the present much too high enrollment in proportion to other fields of training in the Pennsylvania program.

Continue to emphasize increased priority for off-farm agriculture education programs as against farm production courses.

Continue to place emphasis and high priority on employment objective consumer education and home economics education programs, especially for socio-economic disadvantaged high school girls and adult homemakers.

3. *Goal:* Increase the percentage and efficiency of utilization of secondary program training stations as near to 100 percent as possible throughout the State.

Recommendations:

Institute more flexible student admission and exit policies so as to keep training stations in use 100% as nearly as possible.

Increase financial assistance to add vocational counselors in both area vocational-technical schools and in participating high schools with a view toward improving vocational guidance and counseling services; also to reduce the number of high school students, especially Blacks, who enter into an occupational training offering that does not relate to their vocational goals, desires or interest.

Explore and institute more innovative schedules of students.

Intensify student recruitment efforts in all area vocational-technical participating schools.

Utilize vacant training stations for a variety of purposes, e.g., exploratory experience for 8th and 9th grade students.

Investigate and institute training services under contract with private schools with a view toward closing very low enrollment public secondary courses.

4. *Goal:* Increase the percentage of placement of secondary vocational education graduates in jobs for which they receive training.

Recommendations:

Institute required placement and follow-up services in every substantial vocational-technical education program and provide the necessary State and Federal funds to finance such operations adequately.

Give special attention and emphasis to the placement needs of Black graduates and dropouts.

Employ Black placement officers wherever possible, especially in the larger cities.

Intensify promotional efforts and add funds accordingly to establish and operate many more cooperative education programs in all kinds of public and private schools and programs.

5. *Goal:* Continue to increase the number of postsecondary students in occupational education programs.

Recommendations:

Review the objectives and plans of occupational education offerings in the community colleges to determine whether they are or can be articulated with secondary programs and also whether they are realistic in terms of labor market demands.

Provide the necessary State funds to complete the establishment of the community colleges to serve all areas of the State.

Provide the required State and Federal funds to establish occupational education offerings in the community colleges to accommodate 50% of the community college enrollment.

Develop and provide 13th and 14th year postsecondary occupational education offerings in the area vocational-technical schools.

6. *Goal:* Increase the number of adults served by vocational-technical programs of all kinds.

Recommendations:

Intensify promotional efforts to motivate employed, underemployed and unemployed adults to utilize the occupational educational offerings available in the Pennsylvania public and private programs.

Assign more State staff to adult education promotion and supervision.

Provide financial assistance to area vocational-technical schools and local comprehensive high schools for additional counseling and follow-up service for adults.

Adopt more flexible arrangements for enrolling and leaving a program.

Individualize instruction more so as to develop non-graded shop and laboratory instruction.

7. *Goal:* Increase the number of handicapped and disadvantaged persons to be served with emphasis on the younger high school dropouts.

Recommendations:

Develop, institute and fund shorter term curricula in a variety of lesser skilled occupational training programs to be conducted in area vocational-technical schools, in comprehensive high schools and in community colleges.

Appoint two or more additional qualified persons of minority groups as professional staff in the Bureau of Vocational, Technical and Continuing Education.

Re-examine the procedures for alloting earmarked funds for programs for the disadvantaged with a view toward measuring more objectively the benefits to be derived by those persons to be served.

Provide for more adequate monitoring of projects and programs for the disadvantaged, perhaps by utilizing staff members of the Research Coordinating Unit.

Utilize private schools and programs through contract to provide specialized training services just as vocational rehabilitation clients are accommodated.

8. *Goal:* Expansion of the present graduate follow-up system in Pennsylvania.

Recommendations:

Design and institute a system of follow-up of high school dropouts and of postsecondary public and private program graduates and dropouts, especially with a view toward determination of the kind of training programs that might reach them before and after they drop out.

Provide for State staff in-depth analysis of all follow-up data and information with a view toward supplying useful feed-back for making changes in and improving on-going programs.

Establish an effective exit interview system to determine the *real* causes of dropping out.

Make a special study of four year college dropouts to determine where they go and what they do occupationally after leaving college with a view toward providing them with appropriate public and private vocational and technical education opportunities.

9. *Goal:* Utilization of local advisory committees in 100 percent of the area vocational-technical school, local high school and adult vocational-technical programs.

Recommendations:

Assign a State staff member to work full-time with local administrators on increasing and improving the effectiveness of local advisory committees.

Assign area coordinators greater responsibility for examining the effective utilization of local advisory committees.

Develop a continuing communication system between the State Advisory Council and local advisory committees possibly through a representative executive body to make certain that both groups are currently and adequately informed at least on priority program developments and problems.

10. *Goal:* Completion and implementation of the reorganization of the Bureau of Vocational, Technical and Continuing Education in accordance with the organization chart of November 10, 1969.

Recommendations:

Review and implement the recommendations for reorganization made in the Pennsylvania Vocational Education Study of 1969.

Continue the bi-monthly progress reports by the State Director to the State Board for Vocational Education on actions taken or contemplated on the Bureau of reorganization recommendations made in the 1969 Pennsylvania study.

Establish the field office facilities in locations other than higher education institutions as soon as possible so as to unify and improve State administration of all vocational, technical and continuing education programs administered by the State Board for Vocational Education.

Examine with the field office staffs the implications for more effective program planning, coordination and evaluation involving the new intermediate units to become effective in 1971.

Add two or more staff members to the Vocational Program Planning Division to permit the accomplishment of the major planning functions and responsibilities defined for that division.

11. *Goal:* Establishment of more adequate, relevant preservice and inservice teacher and counselor training services for the many new inexperienced vocational teachers and counselors.

Recommendations:

Re-examine the vocational teacher training programs in the cooperating higher education institutions with a view toward developing new and expanded relevant preservice and inservice teacher and counselor training programs.

Initiate the training and placement of vocational teacher and counselor aides in cooperation with higher education institutions, including community colleges, to provide assistance to overloaded vocational teachers and counselors.

Utilize private business, trade and technical schools to assist in the professional training of vocational teachers and administrators.

Develop and utilize a personnel exchange of vocational and technical teachers with business and industrial personnel with a view toward improving counseling and teaching.

12. *Goal:* Identification and training of new young potential vocational education leaders to fill the increased number of administrative posts at the local and State level.

Recommendation:

In cooperation with selected teacher education institutions, establish a continuous leadership training program including a one-semester internship in a well operated area vocational-technical school under an experienced competent director or principal.

13. *Goal:* Establishment and operation of a curriculum and instructional material development center.

Recommendation:

In cooperation with the selected teacher education institution, establish an occupational curriculum development center with a view toward producing highly individualized learning activity packages or units which will serve all Pennsylvania programs.

14. Goal: Improvement in certain general administrative practices.

Recommendations:

Re-examine reporting forms, guidelines, and instructions to local districts with a view toward giving more help to local administrators.

Re-examine financial aid policies for adult education programs with a view toward increasing that aid and thus stimulating greater program expansion.

Re-examine procedures for allotting funds to local districts so that governing boards of area vocational-technical schools might receive funds directly rather than seek them from boards of participating districts and so that funds are substantial enough to make a meaningful contribution.

Work cooperatively with local administrators in the development of a vigorous continuous vocational education public information program.

Work closely with the State Research Coordinating Unit in the perfection and use of the planning information system, including greater use of the updated labor market supply and demand data.

Urge the State Board for Vocational Education and the National Advisory Council for Vocational Education to continue to press the Congress and State legislature for earlier appropriations to permit more effective planning of vocational education programs.

RHODE ISLAND

Chairman—William F. Carroll, Jr.
Ex. Secretary—Truman Weller

I. EXTENT AND DIRECTION OF THE VOCATIONAL-TECHNICAL EDUCATION PROGRAM

Growth in secondary vocational education enrollments in the State is occurring at a rate double that of secondary enrollments as a whole. The 1969 vocational enrollment of 12.7% tends to indicate the States objective of 14.2% will be achieved in 1970 despite delayed expansion caused by late federal appropriations. The long-range goal of 20.5% enrollment by 1974 may be realistically anticipated.

The post-secondary vocational enrollment projections appear to be somewhat high although program expansion will receive a striking increase providing the Blackstone Valley Campus becomes a reality in 1974 as planned.

An unusual opportunity to coordinate economic, social and vocational education planning and to actively seek involvement of disadvantaged and handicapped students in the expansion process will exist in the State during the coming years.

Manpower Development and Training Act programs are of exceptionally high quality in terms of instructors, equipment, student reaction and efficiency, and are succeeding in educating and training hard-core disadvantaged individuals. Keys to this success appear to be the integrated pre-vocational training and highly individualized teaching methods.

Recommended that:

1. More comprehensive labor data be developed so that output and enrollments can be related to actual labor needs, thus insuring that graduate placement will be possible and that vocational program direction is in agreement with economic planning.
2. Increased attention be devoted to serving the disadvantaged and handicapped population with special attention to the needs of the minorities.
3. Post-Secondary vocational enrollment projections be continually reviewed to determine whether they may be high in light of contingencies affecting facility construction.
4. Consideration be given to developing a reporting system to include all enrollments in vocational programs regardless of whether such programs are federally supported.
5. Manpower programs be expanded especially in areas having large disadvantaged and economically depressed populations.

II. VOCATIONAL GUIDANCE IN RHODE ISLAND PUBLIC SCHOOL

Rhode Island has devoted considerable resources to insure the availability of adequate counseling services for its vocational-technical high school students. The State has already achieved the commendable ratio of one guidance counselor assigned to each 252 vocational students and is striving to further improve this ratio through its direct support for counselor salaries.

Desirable ratios, however, is but one of several factors influencing the effectiveness of any guidance program. Many significant improvements remain to be accomplished in the immediate future if the State is to maintain its commitment to the highest possible quality guidance services available to all of its vocational students.

Recommended that:

1. Adequate procedures be adopted to insure a suitable matching of an individual student's characteristics with a specific occupational program.
2. Counselor-student contact be increased to assist students in establishing realistic educational and/or occupational plans.
3. More effective dissemination of auxiliary guidance media and materials be established.
4. Coordination be improved for those guidance activities which are shared by teachers and counselors, such as: job information, placement, and follow-up.
5. Orientation effort be expanded to acquaint school personnel and others with the types of services carried on by the vocational facility and the guidance program.
6. The vocational guidance program be extended to reach students in the sixth and seventh grades.
7. In-service programs be introduced to improve competencies of all guidance personnel in the area of vocational counseling.

III. THE DISADVANTAGED AND MINORITIES IN RHODE ISLAND

The concept of the disadvantaged is relatively new in our society. It is, therefore, not surprising that there is little agreement on definition of the concept. Two questions are often raised regarding the population of the disadvantaged. They are: 1) Who are the disadvantaged, and 2) How many people in the population under consideration are disadvantaged?

By "Disadvantaged" we mean those who through poverty, misfortune, or discrimination are deprived of adequate food, shelter, and clothing, of medical care and education, of meaningful work which can lead to self-realization, and of full participation in all the humanly enriching activities our society has to offer.

Of the 24,830 individuals defined by the Department of Employment Security as disadvantaged, 23,136 or about 84% were represented to be employed full-time but with a family income set below or at the poverty level. Included in these figures are a large number of minority persons which in 1965 comprised 25,000 or about 4% of the total population of the State. Of this total 60% are concentrated in the City of Providence.

It is in the best interest of Rhode Island to see to it that the disadvantaged and members of minority groups get into vocational education programs so that they may broaden their career opportunities.

Recommended that:

1. The State Department of Education, Vocational Division, maintain a collection of data on the social, economic, and racial characteristics of students enrolled in the vocational programs of the State.
2. Teachers, guidance counselors, administrators and paraprofessionals from minority groups be employed by the Vocational Division and the local education agencies in order that these persons may serve as "psychological models" for disadvantaged, low income, and minority group youth and adults.
3. The evening vocational educational program in the inner-city of Providence and in other cities be expanded so that socially and economically disadvantaged youth and adults may be trained and retrained for existing and new careers.
4. The Vocational Division and the Local Education Agency seek out members of minority groups as "contact" people to communicate with members of these groups.

IV. STATE ORGANIZATION AND ADMINISTRATION

At the present time Rhode Island is moving forthrightly in the expansion and improvement of vocational-technical programs to meet the needs of all citizens. The policy of establishing area vocational facilities in selected comprehensive high schools and junior colleges is well suited to Rhode Island's particular situation.

Recommended that:

1. The Division of Vocational Education be reorganized in accordance with the explicit purposes and functions of the Vocational Education Amendments of 1968, (P.L. 90-576). A new organization of this kind would require a one or two year phase-in and intensive, in-service training of present staff members.
2. A continuous vocational education leadership development program be instituted providing for recruitment and training of young potential leaders and including a period of internship at area schools operated by experienced, successful coordinators.
3. The present salary schedule of division staff members be analyzed in the light of comparable salaries at the local level and in similar or neighboring states with a view toward improving the recruitment and retention of qualified and competent staff.

V. VOCATIONAL TRAINING OF SPECIAL POPULATIONS

The following special recommendations are presented concerning the vocational education needs of disadvantaged and handicapped persons.

Recommended that:

1. Existing Vocational and Technical Schools be utilized to accommodate special populations.
2. Existing Vocational and Technical curriculums be modified to meet the needs of special populations.

3. Specialized supervisory staff be employed and reorientation of existing staff be accomplished to meet the needs of special populations.

4. Public School enrollment data relating to the handicapped be obtained and included in evaluation reports.

SOUTH CAROLINA

Chairman—Robert A. Harley
Ex. Director—Dr. Robert H. White

Digest of Recommendations

I. Federal and state financial support for vocational and technical education should be increased beyond the present level, with some changes needed in the method of distribution.

A. The amount of Federal and state funds available to local school districts must be known sufficiently early to permit planning and securing competent personnel. The present pattern of funding in retrospect negates much of the intent of the 1968 Act (Goal 2, Question 11).

B. Additional funds for vocational programs are urgently needed.

C. The State Board of Education should use funds to a greater degree to stimulate needed vocational programs and services.

D. Appropriations to local districts should be adjusted annually to reflect any increased efforts of local districts rather than being calculated on the static base of FY 1969.

E. State officials must assume the responsibility of seeing that each tax dollar is placed where it will make its greatest contribution. For example, low teacher-student ratios for technical education programs indicate unusually high instructional costs per pupil. The extent to which extenuating circumstances justify this should be determined. Comparative information should be obtained and carefully analyzed so that this responsibility of the State Board can be filled.

F. A reserve of state and/or Federal funds should be utilized each year for justified expansion of vocational programs by local districts.

G. More funds should be set aside for discretionary use for new or special vocational programs.

H. A limited amount of funds should be reserved for establishing new, high-priority vocational programs in local districts. Such money would encourage the creation of needed vocational programs but would be available only to school districts willing to accept full financial responsibility for the programs at the end of the second year. This increased cost should be adjusted into the district's total allocation.

I. Consideration should be given to increasing support to afternoon and evening programs.

J. A system of priorities for the allocation of funds for equipment and supplies should be established for those instances where purchase of needed items creates a hardship on districts attempting to maintain a vocational program.

II. The data in the State Plan should accurately represent conditions in the state.

A. The Advisory Council is convinced that the presently available data on which the State Plan is based are uninterpretable. Consequently, an efficient method of collecting, handling, and disseminating management information should be effected at once, and the proposed computerized system should be rapidly installed. Through such changes the quality, scope, and comparability of data must be improved.

B. Only when accurate information has been gathered and evaluation of state programs made, can realistic revision of program objectives and priorities be begun (Goal 1, Question 1).

C. The system should require that teachers and students be reported as full-time equivalents (on an unduplicated basis).

D. While the total number of secondary students served is of interest, other necessary management information would be obtained by conversion to an average class size adjusted to the full teaching day.

E. Operative definitions for "continuing," "expanding," and "new" programs should be explicitly stated in the Plan to facilitate interpretation of yearly changes.

F. Neither conclusions nor recommendations relating to the accomplishments of vocational education as related to projected labor needs within the state are possible due to gross inaccuracies in the available data. Regardless of projected labor demand figures, if the data of Table II, Part 3 of the State Plan have any validity, greater emphasis should be placed on health, trade and industrial, gainful home economics, office occupations, and distributive education.

G. A study should be conducted to determine whether the apparent oversupply in technical occupations is a result of inaccurate data in the Plan, a result of inaccurate data in the projected labor demand, or an actual fact.

H. Results of the Employment Security Commission project of manpower needs by counties should be made available to local school districts as rapidly as possible.

III. The state administration should encourage and support *advisory groups* for each of the local agencies providing vocational education and encourage individual citizens to make their influence felt.

IV. More comprehensive *planning* is needed at both state and local levels. A. The format and content of the state plan needs to be thoroughly revised to make it a comprehensive and comprehensible document.

B. State-wide objectives for Vocational and Technical Education should be explicitly and concisely stated in the Plan.

C. A list of priorities needs to be included in the plan to provide direction for local school districts in planning vocational programs to meet state-wide as well as community and individual needs.

D. As the 1968 Act clearly shifts much of the responsibility for program planning to local school districts, the list of objectives and priorities and any other pertinent information should be made available to local districts in time for local plans to be made accordingly. Such a schedule would increase the likelihood that local programs contribute to the achievment of state goals.

E. Increases in pre-vocational programs should be encouraged to assist more students in making wise vocational choices (Goal 2, Question 2).

F. Circumstances apparently merit an increase in adult vocational programs, and a system of priorities should be established to govern the implementation of this goal.

G. The state policy by which funds are distributed should be explicitly stated in the State Plan. Specifically, the formula for allocation of support to area vocational centers needs clarification. If support for these centers is calculated differently from that for other districts, this fact should be made clear. If not calculated differently, the method of allocation should provide for protecting the state's investment in the area centers.

H. Annual reports on the use of all discretionary funds should be provided to the State Board of Education. The reports should include program locations, descriptions, results and cost of programs. In addition, each exemplary or research project funded should be followed by an annual written description and evaluation. The public should have access to such reports.

I. Schools should legitimize occupational objectives by performing an employment placement function (Goal 3, Question 9).

J. Attention should be given to a plan for re-orienting the secondary school guidance personnel in the state to the relevancy and opportunities available to people without baccalaureate degrees.

K. Public hearings on the State Plan should be conducted sufficiently in advance of the time the State Plan is submitted for approval for suggestions to be considered.

L. There should be state-wide planning to determine the number of qualified teachers that will be needed at various times in the future.

M. Long-range forecasting of the needs for administrative and supervisory personnel should indicate necessary programs to prepare or upgrade personnel.

V. *Cooperation*, rather than competition, between all agencies within the state must be achieved.

A. The Advisory Council and the Office of Vocational Education should continue to work in the spirit of cooperation exhibited during the spring of 1970.

B. Specifically, a system for coordinating the activities of the State Board for Vocational Education and those of the Technical Education Committee must be developed.

C. Local vocational and technical education instructors should hold combined meetings several times annually to review curriculum content and to discuss student problems or other appropriate topics.

D. Vocational personnel should acknowledge the existence of technical programs by including the results of an investigation of technical programs in the local plans.

E. Requests for additional space to house vocational or technical education programs should include a detailed analysis of any existing facilities which might serve both vocational and technical education.

F. A coordinating committee to review and approve new vocational and technical education programs should be established. Regional committees representing both agencies might accomplish this task, or this responsibility might be delegated to a state organization outside vocational and technical education. Evaluating the urgency of need for new programs, determining the appropriate instructional levels, assessing available or required facilities, and judging the relative efficiency of new programs should be the chief functions of these committees.

G. The trend to include representatives from one agency on advisory committees of the other should be encouraged and expanded.

VI. Specific objectives for pre-service *teacher education*, and *in-service education* of teachers and supervisory personnel should be included in the State Plan to provide adequate preparation of supporting personnel and these programs should be implemented by the appropriate teacher education institutions in the state.

A. A relevant in-service program should be established for supervisors of local vocational programs.

B. An effort must be made to attract and to train and upgrade qualified teaching personnel and administrators for the vocational programs in the state.

C. Opportunities for re-training and advanced training must be provided within the state.

SOUTH DAKOTA

Chairman—Glenn A. Barnes
Vice Chairman—Harold Buckingham

Recommendations on Outcomes of 1970 Vocational Education Objectives

Secondary School Programs: Concerning secondary vocational education, it is recommended that:

1. The Trade and Industries programs be greatly expanded to meet the emerging needs for workers as the trend for employment opportunities moves from agrarian to industrial and from rural to urban.
2. The Distributive Education program offerings and enrollments be increased to be more compatible with the proportion of workers in this field.
3. Greater use be made of the "cooperative/part-time" concept of vocational education by all vocational services at the secondary school level.
4. Guidance counselors be given training in vocational education and be provided with occupational data, materials and information in order to help students understand the opportunities available and the training needed to enter the world of work.
5. The State education officials work to achieve a vocational student-guidance counselor ratio of 200:1.

Post-Secondary: Concerning post-secondary, it is recommended that:

1. An intensive recruitment program be implemented to encourage a larger per cent of post-secondary students to enroll in the Area Vocational Schools, and maximum use be made of all news media and public information techniques possible.
2. Emerging occupations pertinent to South Dakota be identified and training programs be instituted to help fulfill such employment needs.

Adult: Concerning recommendations for adult education, it is recommended that:

1. More comprehensive offerings in adult classes be developed in production and technical agriculture.
2. The area vocational schools expand their role in all service areas in training and retraining of adults to meet the ever-changing and advancing technologies.
3. The secondary schools throughout the State assume a greater responsibility in the training and re-training of the adults of their communities for the world of work. Further, that special study be given to the ways and means by which the State Department of Education and the Vocational-Technical Division might best promote this responsibility.

4. A special study be made to determine the need for training in those occupational areas especially suitable for women, and further, that action be taken with respect to the findings which result in program implementation.

Disadvantaged: Concerning the disadvantaged population, it is recommended that:

1. Special programs in all services and at all levels be organized where feasible to train the disadvantaged in marketable skills.
2. Priorities be set in determining how and where pilot classes for the disadvantaged might be organized and conducted most effectively in the State.
3. Special consideration and effort be given to establishing work-study programs for the disadvantaged.

Handicapped: Concerning the handicapped population of the State, it is recommended that:

1. Teachers throughout the State (all services) be oriented to problems inherent in training the handicapped, referral procedures, training agencies, assistance programs, etc. for the handicapped.
2. Work-study programs compatible with individual handicaps be given special emphasis.

Special Programs: Among the State staff's top priorities relating to objectives set for 1969–70 school year were those related to (1) research and (2) exemplary programs. While a modest beginning has been made in these two areas, much remains to be done. Consequently, it is recommended that:

1. Additional funds be provided for research activities. Further, that a joint committee be formed comprised of representatives of the State Advisory Council, State Board for Vocational-Technical Education staff, teacher education staff and teachers to identify problems in vocational-technical education requiring research effort as a basis for sound program planning.
2. A thorough study be made of the kinds of exemplary programs that would make the greatest educational impact on the State's disadvantaged and handicapped population and bridge the gap between school and earning a living for young people.

State residential vocational schools (not applicable).

Consumer and homemaking education: Concerning consumer and homemaking education, it is recommended that:

1. An increased number of programs be established to serve the needs of adults in those areas of the State designated as "depressed."
2. As in-depth study be made of the wage-earning opportunities for women in a typical community of the State and that a pilot program be established in that community to demonstrate student selection, training procedures, and placement on the job.

Cooperative Education: Concerning cooperative education, it is recommended that:

1. Increased emphasis be given by all services to developing cooperative education programs at the post-secondary level.

Work-Study (Not Applicable for 1969–70 FY)

Teacher Education: It is recommended that:

1. Consideration be given to the development of pre-service and in-service training for Distributive Education teachers at both the graduate and undergraduate levels.

2. Expanded itinerant-teacher training services be provided to all services that will:

   (a) Give more assistance to beginning teachers and teachers new to the State on an individual and small group basis

   (b) Offer in-service workshops through district and/or State meetings designed to up-grade teachers on the job

   (c) Teach extension courses of a graduate level within districts of the State where feasible.

3. Closer coordination be effected among the staffs of the respective teacher education institutions and departments to facilitate teacher recruitment, undergraduate and graduate courses, extension classes in the field and research efforts.

4. Each of the cooperating colleges' and universities' teacher education departments add to their staff one or more qualified vocational teacher educators in order that one such person may be attached to each of the five area vocational schools. Such action would provide itinerant teacher education service on an area school district basis for the up-grading of in-service teachers.

TENNESSEE

Chairman—Fred Thornton
Ex. Director—W. M. Harrison

RECOMMENDATIONS

1. The Council recommends that the State Board make an effort to broaden the base of program offerings available to students. Possible redirection of some existing programs is needed to more clearly meet the needs of students in light of actual or anticipated job opportunities.

2. The Council recommends an increase of funds for vocational-technical education to meet the needs of the greater number of students at the high school level including the large number of students who enter the labor market without any postsecondary training.

3. Program expansion is needed to bring the annual supply of trained manpower more nearly in line with the present and future needs of Tennessee. Deficiencies are noted in the Tennessee State Plan by the number of high schools offering only one program in vocational education.

4. Additional funds must be allocated and more leadership must be provided at the local level to determine comprehensive manpower needs. An analysis and description of the economic and projected trends of the Tennessee Economy are needed. This study should reflect: (a) existing Vocational Education Programs; (b) existing social economic conditions and trends; (c) supply and demand for trained persons; (d) available funds and resources.

5. There should be a concerted effort on the part of the State Administration to further involve local vocational educational personnel in cooperative planning with other agencies at the local level.

6. The State Division of Vocational-Technical Education should initiate a plan to establish a role definition for each of the agencies involved in manpower training in order to insure adequate articulation program offerings.

7. Special efforts should be made to involve other agencies concerned with manpower training to a greater extent in the development of the State Plan for Vocational-Technical Education. Regularly scheduled meetings of representatives of these groups should be held to facilitate such planning.

8. More effective use of the mass media should be considered for use as a vehicle for improving the image of vocational-technical education. It is suggested that documentary films and television programs be developed and that more and better informational pamphlets and bulletins be used to accomplish this.

9. Additional programs designed specifically for the disadvantaged should be developed rather than designating existing programs, without major changes and revisions, as those serving the disadvantaged.

10. Additional studies and/or pilot projects should be initiated to:

   (a) Determine the most appropriate time-blocks for effective instruction in secondary vocational programs,

(b) Encourage local systems to design programs that will acquaint students in elementary and junior high schools with the world of work, and

(c) Employ teacher aides or assistants to aid the shop instructor and the remedial instructor in providing individual instruction for those persons who cannot function successfully in regular classes.

11. Efforts should be made to provide the necessary in-service training for members of the state staff in order to up date their knowledges and to provide the necessary skills and abilities needed to effectively carry out their new functions due to reorganization.

12. The times for submitting the Council's Annual Evaluation Report and the Division's Annual Descriptive and Statistical Report should be changed so that the data from the Division would be available to the Council prior to preparing their Report.

13. Some procedures should be established whereby programs in vocational-technical education may be evaluated on the basis of quality as well as quantity. Some procedures should also be established so that data may be obtained for year-end evaluation.

14. The problem of extensive dropouts in some of the programs in postsecondary education should be studied to determine the cause of the high dropout rate and the extent to which early leavers are finding employment.

15. There should be a concerted effort to develop an organized plan for the collection and dissemination of valid and reliable data pertinent to the program planning evaluation process.

16. Studies should be undertaken to develop ways and means of accurately identifying potential dropouts.

17. The Council recommends the development of a plan for comprehensive evaluation of vocational-technical education programs in the State. This evaluation should consider the process as well as the product of instructional efforts.

18. The Council recommends that efforts to identify current and projected manpower requirements and job opportunities be continued and refined to provide more valid and reliable data.

19. Additional programs should be established to train personnel for occupations which have a current and critical need for skilled workers.

20. A more concerted effort to identify new and emerging occupations is needed. Programs should be designed to train persons for these occupations.

21. The potentialities of such programs as cluster-training within a broad occupational area should be further explored and expanded.

EVALUATION AREAS

GOAL I. EVALUATION SHOULD FOCUS ON THE STATE GOALS AND PRIORITIES SET FORTH IN THE STATE PLAN

A. Items evaluated: How effective are the State's federally assisted programs, services, and activities in meeting program goals?

B. Findings and/or conclusions:

1. The Tennessee State Plan for Vocational Education attempts to broaden the base of program offerings available to students.

schools to begin and continue programs that would give youth and adults an opportunity to develop and up-grade skills that can provide meaningful work experiences. The Plan follows the intent of the Vocational Education Amendments of 1968, recognizing the need for programs to serve groups that are still in the main stream of education and those who are outside, persons already in the labor market who need training or retraining for employment, and disadvantaged or handicapped persons.

2. Emphasis has been shifted from programs to needs of people to be served; priority has been given to persons who are disadvantaged and/or handicapped; target population and target areas to be served have been identified and designated.

3. The Council feels that efforts were made to fulfill the State Program objectives in spite of the lateness of Federal funding for vocational programs.

C. Recommendations:

1. The Council recommends that the State Board make an effort to broaden the base of program offerings available to students. Possible redirection of some existing programs is needed to more clearly meet the needs of students in light of actual or anticipated job opportunities.

2. The Council recommends an increase of funds for vocational-technical education to meet the needs of the greater number of students at the high school level including the large number of students who enter the labor market without any postsecondary training.

3. Program expansion is needed to bring the annual supply of trained manpower more nearly in line with the present and future needs of Tennessee. Deficiencies are noted in the Tennessee State Plan by the number of high schools offering only one program in vocational education.

4. Additional funds must be allocated and more leadership must be provided at the local level to determine comprehensive manpower needs. An analysis and description of the economic and projected trends of the Tennessee economy are needed. This study should reflect: (a) existing Vocational Education Program; (b) existing social economic conditions and trends; (c) supply and demand for trained persons; (d) available funds and resources.

GOAL II. EVALUATION SHOULD LOOK INTO ALL PARTS OF THE HUMAN RESOURCES DEVELOPMENT PROGRAMS OF THE STATE

A. Items evaluated: How have various State and regional, public and private programs functioned and how has vocational education fit into the total program—as to duplication, coordination, cooperation, and/or competition?

B. Findings and/or conclusions:

1. Vocational Education is fully committed to comprehensive planning and is represented on the CAMPS Committee by the Assistant Commissioner for Vocational Education, Mr. Charlie M. Dunn. Mr. Henry R. Burkitt, Vice-Chairman of the State CAMPS Committee and Employment Service Director, serves on the State Advisory Council as do representatives of Vocational Rehabilita-

tion and Special Education. This has resulted in a positive improvement in the exchange of information concerning related programs and linkage to other programs which contribute to the vocational development of students. Information concerning the number and characteristics of disadvantaged and handicapped people are being taken into consideration in the development of Vocational Education programs. While these relationships are comparatively new, they are serving a worthwhile purpose and should be continued and strengthened during the next year. In addition to the CAMPS relationship, Vocational Education has executed formal agreements of cooperation which are included in the State Plan.

2. Public and private vocational education institutions and agencies have been involved where timing was a factor or the particular type of training was not available in the regular system. This included individual referral of trainees under MDTA to privately operated schools and a project in Training and Technology at the Oak Ridge Associated Universities. These arrangements have been satisfactory except for the higher cost compared with training in the Vocational Education system. These measures presently appear to be adequate and these activities should be continued into next year if funds are available and the need is apparent.

3. The main activities with non-educational social institutions and agencies have been with the Work Incentive (WIN) and Concentrated Employment Programs (CEP). WIN is a program to deal with the employment problems of AFDC recipients and is sponsored by Public Welfare and Employment Security. CEP is designed to deal with the employment problems of the hard core, disadvantaged person and is sponsored by Community Action Agencies (or local government) and Employment Security. Vocational Education delivers occupational training to students referred under these programs in the same manner as for other trainees under MDTA. The interagency cooperation and experience gained in training this type of student will be valuable in the development of curriculum for disadvantaged persons in other vocational education programs.

4. In addition to the State Advisory Council, local advisory committees including employers and organized labor are involved in the planning, operation, and evaluation of Vocational Education programs. Plans submitted to the State Board are required to contain a notation to this effect and the names of the individuals so involved. Also, a considerable effort is being made to maintain beneficial relationships with employers through the Co-op Program. It is believed that a greater degree of acceptability on the part of employers can be achieved by close cooperation with employers and organized labor.

5. A public hearing was held in connection with the preparation of the annual plan. Periodically, releases are made through the public media on the special activities of Vocational Education. This approach has a beneficial effect particularly on those who are already interested in Vocational Education.

6. It is understood that studies are being made within the Department of Education to define the role of each institution and activity involved in the vocational program effort.

C. Recommendations:

1. There should be a concerted effort on the part of the State Administration to further involve local vocational education personnel in cooperative planning with other agencies at the local level.

2. The State Division of Vocational-Technical Education should initiate a plan to establish a role definiton for each of the agencies involved in manpower training in order to insure adequate articulation of program offerings.

3. Special efforts should be made to involve other agencies concerned with manpower training to a greater extent in the development of the State Plan for Vocational-Technical Education. Regularly scheduled meetings of representatives of these groups should be held to facilitate such planning.

4. More effective use of the mass media should be considered for use as a vehicle for improving the image of vocational-technical education. It is suggested that documentary films and television programs be developed and that more and better informational pamphlets and bulletins be used to accomplish this.

GOAL III. EVALUATION SHOULD FOCUS UPON THE EFFECTS THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 HAD UPON THE STATE IN THE YEAR UNDER REVIEW

A. Items evaluated: What impact have the priorities as set forth in the legislation had upon the State policies and their administration in carrying out the mandates of the Act?

B. Findings and/or Conclusions:

The Advisory Council has no evidence of the termination of any programs, services or activities as a result of the 1968 amendments. It is possible that some programs, services and activities have been terminated as a result of school consolidation and the completion of some manpower development training activities. One hundred-thirty-six new programs were initiated in area vocational schools serving approximately 2,700 students. In addition 43 regular day-school programs were initiated at the secondary level. Seventy-two programs were redirected to serve 4,766 disadvantaged students. Fifteen hundred eighty-two students were enrolled in 31 new Vocational Improvement Programs. Programs for the handicapped were established at ten locations throughout the State serving 1,620 persons.

There is evidence that the administration of programs is being shifted from the State level to the local level.

C. Recommendations:

1. Additional programs designed specifically for the disadvantaged should be developed rather than designating existing programs, without major changes and revision, as those serving the disadvantaged.

2. Additional studies and/or pilot projects should be initiated to:

(a) determine the most appropriate time-blocks for effective instruction in secondary vocational programs

(b) encourage local systems to design programs that will acquaint students in elementary and junior high schools with the world of work, and

(c) employ teacher aides or assistants to aid the shop instructor and the remedial instructor in providing individual instruction for those persons who cannot function successfully in regular classes.

3. Efforts should be made to provide the necessary in-service training for members of the state staff in order to up date their knowledges and to provide the necessary skills and abilities needed to effectively carry out their new functions due to reorganization.

GOAL IV. EVALUATION SHOULD FOCUS UPON THE EFFECTIVENESS WITH WHICH THE PEOPLE AND THEIR NEEDS ARE SERVED.

A. Items evaluated: What people are in need of vocational programs, services, and activities; what people were actually served and how well; what people were not served because vocational programs, services and activties were not available or were not acceptable; what is the intensity, quality and efficiency of the services provided?

8. Findings and/or conclusions:

1. The State Board of Vocational Education gets an annual Year-End Report from all areas of vocational education. This is compiled and submitted to the appropriate Federal agency in the Fall of each year. The person or persons directing the various programs are responsible for submitting this Year-End Report to the State Department annually. The Council has no knowledge of any action taken by the State Board in an effort to check on the validity or reliability of the data submitted in the Year-End Report. The responsibility for checking the validity of the reporting from the high schools, area schools, technical institutes, and the community colleges should rest with the regional or State supervisor or director of that particular phase of vocational education.

2. Data pertaining to vocational education needs of all youth and adults in the State or rather difficult to collect. At the present time, the various institutions get information as to the expressed needs of youth and adults within the area served. The employment trends on a regional or State-wide basis are secured from Employment Security.

3. A system for the evaluation of the State vocational educational program in Tennessee for quality has not been devised at the present time. Emphasis at this point is on quantity. At the present time, no evidence has been submitted by which one can evaluate the quality of vocational programs in Tennessee.

4. Thirty-four new programs in secondary education were to be funded for 1969–70. These are located in 23 school systems in the State. Thirty-four all day trade classes were established in 18 area schools, 9 part-time trade classes were established in 6 area schools, and 93 supplementary classes were begun in 20 of the area schools. This makes a total of 136 new classes in the area schools alone for the school year 1969–70.

The technical institutes have had some new technical programs approved both in Memphis and Chattanooga, and five programs are to begin in September of 1970 in the new technical institute in Nashville. The technical division of the community colleges have made several proposals for new technical programs. Many of these have been approved for inclusion in the catalog.

5. In secondary vocational education 9.6 per cent of the enrollees left the program during the year, or approximately 1 out of 10 dropped out during the school year. Also at the postsecondary level approximately 5 out of 10 enrollees dropped out during the year without completing the program. This, of course, will vary with the type of postsecondary institution being studied, but suffice it to say that there is cause for concern and study in this area to determine the factors causing the high percentage of dropouts.

6. Evaluation of programs being offered in the area schools is carried on continuously to ascertain whether or not the programs are meeting the needs of those who want, need, and can benefit from such occupational training.

C. Recommendations:

1. The times for submitting the Council's Annual Evaluation Report and the Division's Annual Descriptive and Statistical Report should be changed so that the data from the Division would be available to the Council prior to preparing their Report.

2. Some procedures should be established whereby programs in vocational-technical education may be evaluated on the basis of quality as well as quantity. Some procedure should also be established so that data may be obtained for year-end evaluation.

3. The problem of extensive dropouts in some of the programs in postsecondary education should be studied to determine the cause of the high dropout rate and the extent to which early leavers are finding employment.

4. There should be a concerted effort to develop an organized plan for the collection and dissemination of valid and reliable data pertinent to the program planning and evaluation process.

5. Studies should be undertaken to develop ways and means of accurately identifying potential dropouts.

6. The Council recommends the development of a plan for comprehensive evaluation of vocational-technical education programs in the State. This evaluation should consider the process as well as the product of instructional efforts.

GOAL V. EVALUATION SHOULD IDENTIFY THE EMPLOYMENT OPPORTUNITIES WITHIN THE STATE AND THE VOCATIONAL SERVICES REQUIRED

A. Item evaluated: It should be known what occupational opportunities exist and may exist in the state. What vocational education programs, services, and activities are provided to train individuals for actual and potential job opportunities; are the programs appropriate?

B. Findings and/or conclusions:

One extensive study of present and projected manpower requirements and job opportunities in Tennessee has been conducted by Memphis State University. This projects through 1975 and is to be updated annually. Data is analyzed by region and categorized by DOT code numbers. This study marks an important first step and clarifies the need for even more thorough and defined studies to provide data with greater validity and reliability for projection planning. The Department of Employment Security has been of assistance in providing data for program planning.

Employment information from this department and the projections which it makes indicate that some information used in the State Plan is out-of-date before the Plan is approved. The difficulty in providing up-to-date, reliable information for planning is thus highlighted, as is the imperative need for such information.

The Council finds that some emphasis has been placed on preparing people for shortage occupations in the areas of health occupations, service occupations, and construction and building trades.

The development of cluster-training programs remains in the early stages. Some beginnings have been noted.

C. Recommendations:

1. The Council recommends that efforts to identify current and projected manpower requirements and job opportunities be continued and refined to provide more valid and reliable data.

2. Additional programs should be established to train personnel for occupations which have a current and critical need for skilled workers.

3. A more concerted effort to identify new and emerging occupations is needed. Programs should be designed to train persons for these occupations.

4. The potentialities of such programs as cluster-training within a broad occupational area should be further explored and expanded.

TEXAS

Chairman—E. D. Redding
Ex. Director—Alton D. Ice

RECOMMENDATION I

The two broad, general objectives of the education system are for "living" and "making a living". The predominant message from a wide cross section of Texas citizens at the Governor's Conference on Technical-Vocational Education earlier this year was that education in Texas address itself effectively and equally to the propositions of education for "living" and "making a living", and that all aspects of education and all parties of the total educational enterprise of the state must be committed and work as efficiently as possible to support individual needs and career objectives.

It is generally accepted that a college preparatory curriculum is the goal of approximately 75% of the student population in Texas while United States Department of Labor studies indicate that the 1980 educational requirements of the labor force will be 20% with baccalaureate or higher degrees, 25% educated at the technical level and 25% occupationally prepared. With reasonable validity of the above assumptions, it is evident that there must be substantial changes in the educational process and resulting product.

The following general steps within the process are being tried on an experimental basis in Texas and other states:

a. Occupational Awareness, World of Work, Dignity of Work—Elementary level
b. Occupational Investigation, Information, etc.—Grades 7–10
c. Occupational Exploration—Grades 9–12
d. Occupational Preparation—Grades 11–14
e. Occupational Upgrading or Retraining—Adults

A workable concept could be formulated and should be universally effectively supported.

On page seven of the May/June 1970 *Bell Telephone Magazine* an official of the U. S. Office of Education was quoted, "We must learn to design programs without regard for the conventional administrative (but not educational) conveniences of quarters, semesters, six-week or nine-week terms, Carnegie units and quarter-hour and semester-hour formulas. We must learn to design differentiated curricula so that persons may exit at any time for employment or may progress to advanced school work without regard for the school calendar or the college catalogue."

In reaching a career decision, the student should have the benefit of a wide range of occupational information and experience which has accorded him the opportunity to validate his interest, aptitudes and abilities.

The Council, therefore, recommends:

1. That the State Board of Education establish a mechanism, representative of various educational disciplines, interests, and levels and lay citizens representative of the economy and society of the state with the objective of redirecting the educational system to accommodate the relevant and occupational needs of individuals and prepare them for the work force in keeping with the needs of such work force.

2. That it becomes the policy and philosophy of the State and local boards of education that options be left open to students through a flexible education system to encourage adjustment of individual education programs in keeping with the interests, aptitudes, abilities and circumstances of the individual to the end that all be successful in achieving a worthwhile life goal.

3. That the State Board of Education adopt as a priority concern the feasibility of occupational educational exposure for every child in Texas public schools.

RECOMMENDATION II—AREA TECHNICAL-VOCATIONAL SCHOOLS IN TEXAS

I. PURPOSE

The area vocational schools will make occupational education readily available to all students who can profit from such training with offerings sufficiently comprehensive to meet the needs of individuals and employers of the state. The area school may be (a) a specialized high school, (b) a department of a high school, (c) a technical or vocational school, or (d) a department or division of a junior college, community college, university, or technical institution.

II. HISTORICAL DEVELOPMENT

A number of states have utilized area schools for several years. Two relatively successful systems are in the states of New Jersey and Connecticut. Legislation by the U.S. Congress in 1958 provided funds for equipment for area schools on a 50–50 matching basis through the National Defense Education Act. In 1963, the Vocational Education Acts made provisions for area vocational schools and matching funds for construction and equipment, if a school so designated offered a minimum of five separate vocational programs. The provisions were extended by the 1968 amendments to the Vocational Education Acts of 1963. In 1965, state legislation made provisions for creation of county-wide vocational school districts and authorized such constituted districts to levy, assess, and collect taxes to support such area school programs. This statute is codified in Chapter 28 of the Texas Education Code, Bulletin 693, Texas Education Agency, 1970.

III. PRESENT FORM

Since 1964–65, the Texas Education Agency has approved 83 public secondary area schools, 75 of which have received construction and/or equipment funds. Thirty-three junior colleges have been designated as area schools and funded. A total of $28,466,477.58 of federally administered funds have been utilized for area schools at both levels during the six year period with post secondary institutions receiving $14,541,303.07 and secondary institutions receiving $13,925,174.51.

The Texas Education Agency has utilized comprehensive criteria in determining schools to be designated and funded. The program thus far has done much to bring vocational education into prominence as an equal partner in education. Many community leaders are for the first time aware of the impact that technical-vocational education can make upon the social and economic development of their communities.

However, the present program has not resulted in the development of area technical-vocational schools that would encompass adequate student populations, provide a sufficient scope of offerings and meet the broad employer needs of the area served.

IV. FUTURE DIRECTION

It is estimated that expansion needed in the secondary programs should be about fourfold during this decade while post secondary technical-vocational programs would need to be expanded by tenfold. Particular attention and emphasis should be given to new and emerging occupational programs, many of which will be very expensive to establish and maintain because of the high capital outlay and the obsolescence factor.

V. POTENTIAL TO THE STATE

Much of the economic development of the state is related directly to effective and efficient occupational education programs. South Carolina has reported an increase in the state's gross product of $100 for each dollar invested in their technical education centers. These centers are oriented toward the economic development of the state. Such response requires flexibility to accommodate the needs of employers and potential employers. Texas has a well developed higher education system providing well prepared professional persons, but the system for preparation of technicians and skilled workers is inadequate.

VI. CONSTRAINTS

In the absence of state funds and the lack of activation of the county-wide vocational school system, funding for facilities and equipment seems to be the overall constraint as evidenced by ten applications for area school designation for each area school which can be funded. Other constraints include: (1) inadequate information as to the need for occupationally prepared personnel to provide an adequate base for planning and development of area school programs; (2) educational snobbery which causes a disproportionate number of students to pursue degree programs; (3) inadequate teacher preparation programs in certain critical areas; (4) inadequate counseling, placement, and follow-up of students with resulting improvement and expansion of technical-vocational programs.

VII. RECOMMENDATION II

In this concept, the area technical-vocational school will generally serve those occupational needs not normally served in the contributing

school curricula. The area school facility may be a special facility or a combination of other resources within the jurisdiction to include a secondary facility, a junior college, a technical institute, a private school, or other community resources. In order to provide comprehensive offerings, a population or needs base sufficient to support such programs would have to be included in the jurisdiction.

The Council, therefore, recommends:

1. That area technical-vocational schools be established within the following guidelines:
   a. Metropolitan counties may establish one or more technical-vocational school jurisdictions with a minimum of 5,000 High School Average Daily Attendance (HS ADA).
   b. Counties with a HS ADA population of 1,500 or more may establish one county-wide area school jurisdiction.
   c. Counties with a HS ADA population of less than 1,500 may establish a multi-county or regional area technical-vocational school jurisdiction, with a minimum of 1,500 HS ADA. The State Board of Education may approve on an individual basis exceptions to this provision.
2. The administration of the area school jurisdiction would be by a board with one member representing each high school district, junior college or technical institute within the jurisdiction and one citizen for each public school person on the board. The citizen group would be representative of the communities and interests within the jurisdiction. Any special facilities established within the jurisdiction would be under the administration of the vocational administrator and the administrator would be responsible for the overall coordination and supervision of vocational-technical education within the jurisdiction in order to prevent unnecessary duplication and to assure that programs are of high quality and meet the occupational needs of youth and adults within the jurisdiction in keeping with the needs of the labor market served.
3. An area school jurisdiction may be approved by the Texas Education Agency within guidelines after the citizens of the jurisdiction vote under the provisions of Chapter 28, Section 28.01—Texas Education Code to establish an area school with tax revenue.
   a. State funds would be available to match the revenues raised within the area school jurisdiction.
   b. That funds available from Federal sources be utilized for the purchase of equipment for high cost programs in area technical-vocational school jurisdiction.
   c. That first priority be given to allocating federally administered funds for area school jurisdictions with 3,000 or more HS ADA populations.
   d. That a discretionary fund be appropriated to the Commissioner of Education for utilization in support of adult education programs in technical-vocational education. Such funds would be used to pay costs of instructors and instructional materials. Facilities and equipment for adult education would be the responsibility of the local school district or area

school jurisdiction. The area school jurisdiction should provide within its budget a contingency fund to support special training needs which cannot normally be incorporated into the regular program.

4. Transportation of students be provided by the contributing district or campus and such transportation be financed by the State through an allotment of funds for area vocational school students based on a formula to be determined by the Texas Education Agency.

5. That the Texas Employment Commission will be responsible for compiling labor market data and information with the cooperating support of the Texas Education Agency, Texas Industrial Commission, other state agencies and groups as well as trade associations, employers, labor unions and others. Interpretation and transmittal of the data to the school systems for development of technical-vocational education programs for the most effective utilization of human resources of the state would be the responsibility of the Texas Education Agency. Funds should be provided for the implementation of this system.

6. Area school jurisdictions will be responsible for product evaluation and consequent adjustment of the process as determined by a local citizen advisory committee. Such evaluation will be reported to the Department of Occupational Education and Technology, Texas Education Agency, in a form to accommodate a subsequent state evaluation.

VIII. DEFINITIONS

1. Area technical-vocational school jurisdictions as established under the provision of section one, this recommendation, will have the following characteristics:

   a. The Area Technical-Vocational School as expressed in the recommendation should have highest quality in physical appointments, the most up-to-date equipment, highly qualified faculty that will produce well qualified persons which have the respect of the employers of the area served.

   b. The jurisdiction may be multi-campus within a district or multidistrict within a county or counties.

   c. Junior college and technical institute facilities located within the jurisdiction should be utilized to satisfy the resource needs. Proprietary schools within the jurisdiction should be utilized in providing training not available within the public sector in order to add comprehensiveness to the program.

2. High cost programs will be those requiring $5,000 or more for capital expenditure on equipment to initiate the program. Federal matching requirements may be satisfied by local expenditures for building or remodeling of existing facilities and equipment.

RECOMMENDATION III

The growth of the economy of this state depends upon the availability of skilled people in many technologies. Employers are searching for talented, knowledgeable and trained youth and adults who can be a part of the growth and development.

The rapid change in technology has over burdened our education system in providing work training for youth and adults. An additional factor is the high capital outlay in training costs for many programs in technical-vocational education. Consideration must be given to the needs of the economy and individuals to be prepared to take these jobs, and adequate priorities should be assigned to meet such needs.

Some very noble efforts have been made during the past three or four years to provide summer jobs for students; and even though substantial progress has been made, many young people do not have jobs or worthwhile activities after school and during summer months. Inactivity and boredom sometimes breeds violent reactions toward society as a whole.

Many of our present school plants are not used during the summer months and after regular hours, and there are many facilities and resources of employers which could be made available for training. We need to use all of the facilities and human resources of the entire community to bring about an economically beneficial advantage to our state.

The Council recommends:

That provisions be made for financial support to permit maximum utilization of technical-vocational facilities and resources after regular hours and during summer months for enrichment of curriculum for in-school youth, for out-of-school youth, and adults, who are underemployed or unemployed.

RECOMMENDATION IV

Job training and preparation programs are meaningless without jobs waiting for the trainee. Economic development and jobs seek trained manpower. The State of Texas has many communities in desparate need of new jobs. In order to encourage economic development and full employment of our citizens, the Council has the following recommendations:

1. That the State Board of Vocational Education request discretionary funds for the establishment of a reservoir of industrial and instructional equipment to provide short intensive instructional programs whenever and wherever needed.
2. That the State Board encourage the establishment of a joint task force of appropriate staff members of the Texas Education Agency, Texas Employment Commission, Texas Industrial Commission, the Office of the Governor, and other state agencies and groups, and that it meet at least quarterly to review requirements for new and developing occupations and skills. Recommendations for the appropriate state agency to meet these needs should be made by this joint task force.
3. The Advisory Council supports the establishment within the Texas Industrial Commission of the Office of Director of Industrial Training. The Director would serve as a member of a coordinating committee to be composed of appropriate staff members of the Texas Education Agency, Texas Employment Commission,

Texas Industrial Commission, Office of the Governor, and such other state agencies and organizations as would be involved in order to establish relationships with new and expanding industry to meet the special needs of such economic development. The coordinating committee would identify the resources to meet such needs. The Council would further support appropriation of discretionary funds to provide training, equipment, supplies, instructional facilities and instructional personnel, when not otherwise available.

RECOMMENDATION V

The Council is cognizant of one of the most critical factors in implementation of effective technical-vocational education programs in the State of Texas, the leadership given it by the education profession. The requirement for direct interface between education and the local economy becomes more acute with each passing year. It is necessary that the school administrator understand the economy of the community, the workings of the labor market, the role of education, and how these are related to the needs of individuals.

The Advisory Council, therefore, makes the following recommendations:

1. The State Board of Education initiate a technical-vocational administrator internship program in the state.
2. The State Board of Education work for preparatory programs for school administrators to include study and experience programs in the history, philosophy and administration of technical-vocational programs, study of economic factors of a local community, the labor market serving the school, and the relations of these to the needs of students.
3. The State Board of Education make provision for the development of a series of regional seminars during 1970–71 for the attendance of the local school superintendent and his curriculum administrator from the school districts in the state with over 4,000 ADA. The seminars should also include junior college presidents and their deans of technical-vocational education. Seminars should utilize the best available talent in and out of the state in the area of education, technical-vocational education, manpower programs, labor market information, and influence of those upon education programs.

RECOMMENDATION VI

Proprietary vocational schools play an important role in the education of Texas citizens for job opportunities and manpower needs. For decades these schools have served the specific and peculiar needs of business and industry by training qualified personnel ready to assume their places in the work force. The proprietary schools have given special assistance in training our handicapped and disadvantaged.

In order to protect the image of technical-vocational education and to expand the contributions of legitimate proprietary schools, it is necessary that unscrupulous private school operations be removed from Texas. Many disreputable private schools now operate in our state exploiting numerous citizens who can least afford such exploitation.

The Council recommends: That the State Board of Vocational Education support mandatory licensure of proprietary schools to include the following provisions:

a. Texas Education Agency be responsible for administration of the act with the advice and counsel of an advisory council.

b. Adequate reporting of enrollments, completions and placements by occupational categories.

c. Standards should be established to assure a quality product and should include such factors as teacher qualifications, curricula and facilities.

d. Included in methods of operation should be a pro rata refund policy, promissory employment practices should be valid, schools and their salesmen should be bonded, and recruitment policies including solicitation and advertising should be carefully assayed.

e. Sufficient income from licensing fees, renewal fees and noncompliance penalties to support licensing activities.

f. Proprietary school resources be considered in the total resources available to school administrators for developing comprehensive occupational programs in discharging their responsibilities for occupational preparation of youth and adults.

g. SB 261 be amended to include a representative of proprietary schools on the Advisory Council for Technical-Vocational Education in Texas.

h. State Board of Vocational Education should extend to administrators and teachers in proprietary schools in-service programs to improve the quality of instruction.

RECOMMENDATION VII

Texas has long been a leader in technical-vocational education in our nation. However, we do have dropouts from our present educational system. The educational community should commit itself to an effort of "no dropouts" in serving the needs of our youth and adults. Educational planning should include demographic, economic and labor force data.

The Governor's Office is active in efforts to coordinate data collected by the various state agencies and commissions. Data is being utilized by a variety of groups responsible for planning such as local school districts, cities, counties, Standard Metropolitan Statistical Areas, Councils of Government, Comprehensive Area Manpower Planning Systems, and other agencies and organizations. Data from the Texas Employment Commission, CAMPS, and other state agencies and groups must be interfaced for the benefit of planning within the field of education. All systems need to be coordinated so that problems can be readily identified and steps taken to rectify them.

The responsibility of the Council as outlined in Section 7(i) of SB 261, "Provide up-to-date statistical data on employment opportunities in the Texas economy to persons trained in these institutions through cooperation with the Texas Employment Commission and other appropriate research agencies at both the state and national levels."

Therefore, the Council recommends:

That the feasibility of an electronic data system be examined with a view of implementing a coordinated information retrieval system. The State Board of Vocational Education should initiate planning toward this end.

RECOMMENDATION VIII

The Council is aware of the need for well qualified technical-vocational teachers. These teachers are essential for the growth and development of vocational programs to train persons for occupations. In the July, 1970 issue of the *American Education* magazine, the U.S. Department of Labor is quoted with the following provision for the next decade, "The aggregate supply (of elementary and secondary teachers) is expected to significantly exceed demand if recent entry patterns into the occupation continue."

However, Don Davies, United States Office of Education, Associate Commissioner for Educational Personnel Development points out in the same article, "There is no end to shortages in expanding fields—early childhood, vocational, and special education, and in junior colleges. Counselors and social workers are also in short supply, and some geographical areas suffer shortages of all kinds of educational personnel."

The supply of qualified technical-vocational teachers is critical and should be given priority by institutions of higher education with vocational teacher preparation.

The Council recommends:

1. That the State Board of Vocational Education in cooperation with the Coordinating Board on Higher Education establish a consortium to include higher educational institutions with vocational teacher preparation programs for the purpose of training technical-vocational teachers.
2. Programs of industry/education cooperation to provide qualified teachers and to keep the teachers updated in their skills.
3. Institutions of higher education with vocational teacher preparation programs should involve employers in laboratory and internship programs for training.
4. That teaching experience credit be given for related non-teaching work experience in determining salary schedules of technical-vocational teachers.

RECOMMENDATION IX

A rapidly changing technology within existing occupations, the emerging of new occupations, the redirection of existing training programs and other changes has created a need for a statewide comprehensive technical-vocational curriculum and materials system to serve technical-vocational education at all levels. The staff of such a system should take the initiative to apprise itself of the needs of the state, developments throughout the nation in the field and develop lines of communication with employers to utilize their expertise as an effective resource for the curriculum and materials system.

The Council, therefore, reccomends:

That the State Board of Education establish a statewide comprehensive technical-vocational curriculum and materials system.

The system would serve as a resource bank with a publishing capability. An advisory committee would assist in identifying the objectives for the center and developing operating policies. Such an advisory committee would be representative of the education profession and employers.

RECOMMENDATION X

The Advisory Council for Technical-Vocational Education in Texas developed a questionnaire requesting information from local school districts concerning the number of high school graduates entering colleges, technical-vocational schools, private schools, the work force and other related information. The questionnaires were mailed to 947 school districts offering vocational education in Texas at the secondary level. Approximately one-half of the districts responded. However, less than 20% of those responding gave all the information requested on the questionnaire. Notes appeared on the questionnaire to the effect that a school does not maintain this information and other similar remarks. A special analysis was made of the returns giving complete information. Yet with the more promising returns, approximately 30% of the graduates and dropouts leaving high school were unaccounted for either in statistics on the work force or further education.

Local school districts are not presently required to have responsibilities for placement activities nor collect, maintain and report follow-up data. In the opinion of the Council, the failure of local school districts to engage in these activities in a serious manner is responsible, in part, for the lack of product evaluation of public education and subsequent program changes to make the education process relevant to the needs of the student and community.

It is therefore recommended:

That the State Board of Education initiate on a demonstration basis in a minimum of twelve school districts, representatives of the broad cross section of districts within the state regarding size, geography and other factors, a system of report and follow-up with the view that such system when proven could be implemented statewide by September 1973. It is further recommended that the State Board make an effort to identify students by a social security number by September 1971 as a base for identification and development of further systems of information and follow-up.

RECOMMENDATION XI

During the 61st Legislature, a student contact hour formula was established for funding technical-vocational programs in junior colleges throughout the state. Basically the system is very effective in rewarding those who produce. The principal problem has been in the level of funding which has proven to be inadequate. Too, there is not adequate provision for the generation of new programs.

Only direct costs were included in the initial formula. It is the opinion of the Council that such formula should also support the indirect costs of technical-vocational education. The Advisory Council has sponsored a study of both direct and indirect costs of technical-vocational programs in Texas. This study is Attachment 4 to this report.

The Advisory Council recommends:

That the student contact hour formula for the funding of all post secondary technical-vocational education be refined, improved and changes made in the formula rates to adequately fund technical-vocational education programs. Further, that provision be made and funds provided for the generation of new programs. Further, that provision be made and funds provided for approval on a project basis of special programs to meet particular needs within the service area of an institution.

That the Texas Education Agency devise and require a uniform cost accounting system which will display all elements of cost in technical-vocational education. Information gathered from this system would be used for management and planning.

RECOMMENDATION XII

The increase in ancillary units in vocational education in the State of Texas as a result of such units being funded through the Minimum Foundation Program will bring vocational administration and supervision to a large percentage of the vocational programs in the State.

These services are urgently needed to properly relate the vocational program to the needs of youth, adults, and the labor market being served. The increase in vocational guidance counselors in the school system to a total of 167 for 1970–71 will further support the quality and efficiency of vocational education throughout the state. The Council applauds the strengthening of this vital aspect of technical-vocational education development. This large increase in positions in vocational supervision, administration and counseling will mean that a number of persons employed in these positions will not have had prior experience in this capacity.

The council therefore recommends:

That the State Board make special efforts to provide as much direction through in-service education and other supportive services as possible, to enhance the effectiveness of these ancillary units in the meaningful development and growth of technical-vocational education in the state. The headquarters staff of the Department of Occupational Education and Technology should take the leadership in utilizing the resources of the field staff, applicable services of Education Service Centers, employers and other groups in support of local school districts and their efforts to improve their programs in technical-vocational education. The Council supports staff increases to perform these services.

UTAH

Chairman—Robert Halladay
Ex. Director—Jack C. Higbee

RECOMMENDATIONS

Recommendations are made in the light of program objectives listed in the State Plan, labor market demands taken from parts of the State Plan, and economic and unemployment conditions in various districts of the State. It is highly possible that some of the recommendations will not be feasible for implementation in Utah due to conditions or information not available to the evaluation team.

It is recommended that:

1. The State Board for Vocational Education appoint a Deputy Superintendent for adult and vocational programs. This person should come to the position with a vocational background.

2. The Utah State Vocational Advisory Council appoint an Executive Secretary. This job description should include:

(*a*) Working with the State Board in developing the State Plan.

(*b*) Working with industry and local advisory committees to gather information which will be presented to the State Board to upgrade curriculum and reduce the time lag between industry's present patterns and education's procedures, provide advice on courses to be offered to meet today's employment needs, develop the concept with education that job placement and job preparation are inseparable.

(*c*) Coordinate the activities of the Council.

(*d*) Work with the State Department in upgrading, in a positive manner, the vocational education in the State.

(*e*) Communicate to the public on vocational education.

(*f*) Provide the Legislature leadership to secure the necessary support for vocational education.

3. The State Legislature should be asked to memorialize the United States Congress to make funds available before vocational programs begin.

4. Some work experience in the occupational field being taught in the vocational program of the State should be required of all teachers or coordinators of all cooperative part-time programs.

5. All vocational teachers or coordinators should be required to attend summer teacher education programs or workshops developed in cooperation with the teacher training institutions.

6. Vocational course offerings should be readjusted to be more nearly in line with predicted labor market needs. In line with this, current programs appear to be varied in the following manner:

(*a*) Vocational Office Occupations courses should be decreased until more in line with predicted labor market needs and employment possibilities. Part B funding might be limited to those cooperative programs where on the job activities are available on actual training stations in a place of business or office.

(*b*) Home Economics (Useful) should be de-emphasized and Home Economics (Gainful) or Wage Earning, should be extended to the recommended proportions. It should be extended to other than the eight districts where it is now offered.

(*c*) Adult Home Economics should be extended to the fifteen districts not now served. Seven of these fifteen are districts classified and listed as economically depressed.

(*d*) Expand Distributive Education, cooperative programs to the twenty-one districts not now being served. Four depressed districts not being served.

(*e*) Study imbalance in Trade and Industrial Vocational offerings (overload in auto mechanics enrollment across State) and adjust to needs of labor market. Expand cooperative industrial in small communities. Study Diversified Occupations programs and justify or eliminate enormous Eighth and Ninth Grade enrollment in this program.

(*f*) Continue re-direction in Vocational Agriculture away from production towards Agri-Business, etc.

(*g*) Promote Health Occupations. Operates now in only seven districts.

(*h*) Encourage occupational and career guidance personnel to stress entrance into occupational fields more, and post-secondary education in other than technical colleges less.

(*i*) Continue and carefully study exemplary program for occupational preparation in selected agricultural and industrial activities for small high schools in Utah and Project Success.

7. Make a careful study of the selection procedures used to influence student enrollment in vocational classes. Involve qualified vocational teachers in the final selection of students. Try to eliminate those who do not have vocational objectives so their places can be filled by those who plan to enter the field for which trained. If a model is developed, conduct worskshops for those who will be involved in its use.

8. Do not support cooperative, part-time programs in any area unless students involved have bona fide work stations in office, business or industry. Enrollment should be limited to available work stations.

9. Increase time for coordination of cooperative, on the job, supervision of student learners. This time should be increased in proportion to the number of student learners but should not be less than three hours instead of the one now provided.

10. Support R.C.U.'s follow up project to learn why people graduating from vocational and technical programs do not enter the job for which trained.

11. Promote the use of advisory committees on both the district and especially on the craft level. Conduct workshops or whatever necessary to prepare teachers and administrators in their use.

12. Conduct workshops for individuals in school district offices who have the responsibility for tabulating and accounting for vocational education funds to explain requirements and procedures. Should be below administrative level.

13. Encourage State Specialists to keep an up to date running record of their programs, locations, districts, enrollments, and categories from which financed. This should also include supervisory visits, special activities, etc.

14. Make a study of the actual content of day vocational programs to make certain that they are actually taught as trade preparatory courses instead of general education courses. Require that content selection involve craft advisory committee recommendations.

15. Develop state-wide placement service involving Utah Department of Employment Security, inform teachers and administrators of its availability and orient them to its use.

16. Study problem that exists between Utah Technical College at Provo and the districts in the vicinity that utilize its offerings for high school level vocational programs. It appears that some students needs and desires are not being met due to financial problems.

17. Assign a member of the State Office staff the responsibility for organizing supportive services agencies and making their availability known to individuals involved in vocational education teaching, coordinating, or administration.

18. Study administrative procedures at the two Utah Technical Colleges for improvement of articulation between administration, staff, and students.

19. Continue or expand in some cases, visits by State specialists and teacher educators, especially to vocational teachers. If necessary, additional specialists should be provided to make one trip per year (minimum) possible.

20. Establish a uniform system of recording vocational students activities in technical classes—clock hour contact, etc.—and inform teachers of its use and require utilization.

21. Encourage two or three hour continuous class periods in vocational class scheduling.

22. Expand present effort to serve handicapped, disadvantaged, and others with special needs, day or night, and regardless of race, color, or creed.

23. The State Board for Vocational Education should improve the articulation of the vocational program by developing in the elementary schools a comprehensive program of developing positive attitudes toward work and career orientation (such as in Wyoming) and expanding pre-vocational programs on the secondary level.

24. Vocational Advisory Councils throughout the State should be used more effectively to bring current expertise to the State vocational program to reduce the time lag, develop a more meaningful curriculum and provide feed-back for current industry practices. In order to do this, adequate funds should be provided the advisory councils to insure success.

VERMONT

Chairman—Pelton Goudey

Ex. Director—Richard Collins

RECOMMENDATIONS

1. That the State Board of Education upgrade and fill the vacant vocational guidance consultant position in the State Department of Education.

2. That the State Department of Education develop a clear and concise position relative to guidance services in the State of Vermont, K through 12.

It is the firm belief of the Council that guidance services cannot be separated into any divisions and still provide an effective service for all students. Therefore, the council further recommends:

3. That all guidance counselors shall be considered to be and to serve as vocational guidance counselors.

4. That an incentive system be established to encourage local administration to instill in all guidance counselors greater awareness of vocational and technical education programs and careers.

5. That a career development program be developed and initiated for grades K-6 to supplement the redirected secondary program.

The Council members are in support of the present Area Center concept for vocational education for Vermont youth for lack of a better alternative. However, the Council feels its recommendations should be directed toward more equal access for all Vermont students regardless of geographical location.

Specifically we are talking to shared-time attendance from sending schools in comparison to attendance by area center resident students.

6. That the State Board of Education provide direction demonstrating that the Centers are part of the sending school's curriculum.

7. That the general advisory committees in each center become more active in encouraging closer cooperation and coordination in regard to transportation, scheduling and pre-vocational offerings.

8. That some exemplary pilot projects be developed illustrating better use of the student's time while being transported. These not to be limited to vocational offerings. For example—individualized instruction, providing shared time of teachers, and enrolling students in courses not specifically identified as vocational.

9. That the Area Vocational Guidance Coordinator serve on an equal basis all guidance counselors in a designated geographical area.

It is the firm belief of the Council that many students throughout Vermont schools do not have adequate knowledge of occupations (professional and non-professional) and their relationship to existing vocational programs. The Council would like to see the area vocational guidance coordinator function as a coordinator of resources between local craft advisory committees, area business people and guidance counselors. This area vocational guidance coordinator would have no direct student counseling load but would be responsible for an ongoing orientation program climaxing prior to registration time each year. It is with these thoughts the Council further recommends:

10. That the support of funding for this position be increased to make it economically feasible to function in this manner.

The State Advisory Council is proud of the foresight and determination of the State Board of Education and State Department of Education in establishing and implementing a planned program for vocational education opportunities which could serve most Vermont youth.

These recommendations are submitted to the State Board of Education for consideration and transmittal to the Commissioner of Education, Washington, D.C. and to the National Advisory Council on Vocational Education.

VIRGINIA

Chairman—Rufus W. Beamer
Ex. Secretary—Arthur L. Walker

RECOMMENDATIONS

In consequence of the goals, objectives, and priorities listed and discussed in the body of this report, and in an effort to be constructive, the Council submits the following recommendations:

Recommendation 1

That specific goals, objectives, and the order of priorities for each item of commitment contained in the Annual State Plan, Part III, be stated clearly and specifically either at the beginning of each goal or in a separate document with accompanying HEW numerical code references.

Recommendation 2

That consideration again be given to establishing and implementing a Research Coordinating Unit which would be attached to an appropriate university or college, and that the State appropriate sufficient resources to conduct continuous research in and for specific fields in occupational education. A professional person competent in research procedures should be assigned to the Advisory Council's headquarters staff.

Recommendation 3

That a data system adequate to serve current and recurring needs of the Advisory Council on Vocational Education be established for planning, programming, and evaluating and reporting.

Recommendation 4

That the State Advisory Council on Vocational Education be adequately staffed, equipped, and housed so as to render effective service to its mandated responsibilities of advising the State Board in the formulation of Long-range and Annual Planning, and in the evaluation of the effectiveness of implementation of the State Plan for the "year under review".

Recommendation 5

That special effort be made by the State Board to stimulate interest and action in development of programs for orientation of all elementary-age pupils to the realities of the world of work and for the dignity of labor; personal responsibility of every individual for self-maintenance and self-realization in his adult life.

Recommendation 6

That local school districts be encouraged to accept responsibility for planning vocational education programs that meet local needs—to provide adequately for meeting the occupational needs of all persons of all ages and in all life careers.

Recommendation 7

That vastly increased citizen involvment through active membership on advisory committees for administrative planning, instructional effectiveness, and job placement and advancement be encouraged.

Recommendation 8

That local schools be encouraged to consider the imperative importance and the necessity for job placement and periodic follow-up of those who enter the world of work as an integral phase of occupational education.

Recommendation 9

That the date for submission of this report to the State Board, to the National Advisory Council, and to the U.S. Commissioner of Education be deferred to a date sufficiently advanced to allow time for receipt of end-of-year field data needed to establish bases for accountability ratings. These data have not been available prior to December 1 following the end of school year for the "year under review".

WASHINGTON

Chairman—Craig Merrill
Consultant—Merle E. Strong

RECOMMENDATIONS

RECOMMENDATION 1

It is recommended that Federal funding of vocational education be at the level authorized by PL 90–576 and that procedures be devised to free these funds from the constraints imposed by the federal fiscal year.

Rationale

In order to carry out the planned program of vocational education in the State of Washington under PL 90–576 it is absolutely mandatory that predictable funding be provided at the federal level. The unfortunate delay of at least eight months in finalizing the FY–70 appropriation, the prescription for funding under the continuing resolution and the extremely insufficient levels of funding thus made available have had a disastrous effect upon the development and promotion of vocational education in this State.

The impetus given to planning, and broadening the impact of, vocational education by the 1968 amendments can quickly be dissipated if additional funds for the desirable additional services are not forthcoming. The administration recommended funding at the same level as for previous years, which is about one-half the level authorized in PL 90–576 for the purposes of Parts B and C ($565 million) and about one quarter of the total $815 million authorized for Parts B through I, not including the funding for Advisory Councils nor the additional $35 million under Title II for vocational education leadership and professional development.

Under the continuing resolution through which federal vocational educational funds are currently disbursed to the states, Washington State expects to receive $3,726,842 through FY–70. Pending resolution of the HEW budget legislation, this may be changed. The expected level of Federal funding for FY–70 is only $2,739 more than was received in FY–69 and it is $404,670 less than requested in the FY–70 State Plan.

A lower limit on the cost of developing the more extensive State Plan required under PL 90–576 is provided by the $40,445 expended in staff time and publication costs by the Division of Vocational Education. The cost incurred by other local and state agencies is not included in this figure. The less than $3,000 *expected* increase over the previous year's funding level is a discouraging return for the extensive effort the vocational educators of Washington State expended in satisfying the requirements of PL 90–576.

At this date, efficient planning would require a good knowledge of the FY-71 funds to be expected. Yet, the final resolution of the amount of Federal funds to be received in the current fiscal year is still unknown. The annual State Plan was generated from the budgeting information provided by local districts within the State. This information gave the expected costs of programs which are currently on-going and generating costs which must be reimbursed. Juggling budgets and planning for both desired and dreaded fiscal outcomes within the constraints of PL 90-576 is a time consuming exercise which should not be necessary under a responsible Federal funding system. It may be naive to request a change in the traditional budgetary practices of the U.S. Government, but the present practices do not encourage the annual, let alone long-range planning so badly needed in education.

If the Congress is to fully fund the provisions of PL 90-576 they must be convinced of the need for the funds and appraised of the effects of the funds. In order to satisfy these two information needs the U.S. Office of Education has to be provided with reports from the states. In view of the establishment of the State Advisory Councils, who can serve a "watch dog" function over federal funds, it is suggested that the USOE streamline its reporting requirements. In particular, it is not understood what statistical or evaluative purpose can be served by the over 60 pages of subjective descriptive narrative generated for the "Annual Descriptive Report of Program Activities for Vocational Education in the State of Washington for Fiscal Year Ending June 30, 1969," in response to the suggested outline of OE Form 4041.

There is some concern among vocational educators in Washington State that the USOE reporting forms, which require categorical accounting for funds, may encourage the dichotomy between vocational and academic education. As long as vocational education funds for broader programs than those with the traditional specific occupation orientation are limited to "special" sources of funding the national goal of salable skills for each person exiting from school will be more difficult of attainment.

One specific problem generated by the USOE reporting forms is the request to enumerate the number of disadvantaged enrolled in "regular" programs. PL 90-576, Sec. 122, a (4) (A) defines disadvantaged as those having "academic, socioeconomic or other handicaps that prevent them from succeeding in the regular vocational education program."

It has been the experience of many local, state and Federal agencies that reporting requirements are less onerous to those who must do the reporting, and more valuable to those who receive the reports, when reporting procedures have been developed through cooperative efforts among all parties concerned. The Advisory Council suggests that the U.S. Office of Education initiate efforts to avail itself of the valuable input the states could provide in the formulation of USOE reporting formats and guidelines.

RECOMMENDATION 2

The Division of Vocational Education should accelerate its efforts to develop and implement a more effective information system which centralizes the information required for planning, coordinating and evaluating the total vocational/occupational education program of the state.

Rationale

The council believes that the long-term progress of the State's vocational education program is largely dependent upon the ability to set priorities and to activate coordinated efforts by the various agencies serving the vocational education needs of the State. State and national legislation (RCW 28.85.160, 28.85.200; PL 90-576, Sec. 108, (8)) makes the Division of Vocational Education the operational agency responsible for such planning and coordinating activities. Consequently, the D of VE is the logical location for a broadly based, information system which gathers information on all the vocational education activities in the state into one office so that the contributions of each public and private agency to the statewide vocational education effort can be evaluated and coordinated.

The information system should provide the objective and subjective information necessary for planning, evaluation and making management decisions. There is urgent need to get the data essential for:

(*a*) assessment of the State's present and emerging needs,

(*b*) planning and maintaining instructional and counseling programs that meet those needs,

(*c*) assessment of how well the needs were met.

The Division of Vocational Education is to be commended on the progress it has made in this area during the last year, particularly towards developing a PPB system, modifying the local district planning guides and working with the Employment Security Department in developing the mechanisms for providing an annual report on State and area occupational requirements for vocational education.

The words to be stressed in Recommendation 2 are "central", "total" and "system". "Central", because when information is to be used by many agencies coordination is more efficient. "Total", because priorities may miss important areas for development or induce duplication when information relevant to some agency's contribution to vocational education is left out. "System", because the Division of Vocational Education, in line with its charter of "supervision of administration" will continue to be dependent upon the data collection activities of the two major system components, the State Board for Community Colleges and the Superintendent of Public Instruction. Full cooperation among these three agencies in determining the information to be collected by each and defining their respective reporting responsibilities is essential to the smooth functioning of the system for generating central reports useful to all parties.

The Advisory Council agrees with the assessment of the Legislative Budget Committee Preliminary Report that "Insufficient information is currently available with which to attempt to judge the effectiveness of various vocational programs." (p. 26 in the previously cited report).

Suggestions

The information system should provide means for obtaining and using facts which will better define and measure:

(1) Factors affecting the nature of vocational education:

(*a*) Manpower needs, trends and projections.

(*b*) Skills, attitudes and basic education essential for effective work in modern occupations.

(*c*) Motivating influences on individuals' occupational choices.

(2) Factors affecting pupils' access to vocational education:

(*a*) Size and geographic location of school populations.

(*b*) Local vocational education program, staff, facilities and financial needs.

(3) Factors affecting the evaluation of vocational education:

(*a*) Number of individuals served broken out by training level, occupational area, number of courses enrolled in, special populations and serving agency.

(*b*) Employment and job-success of graduates.

(*c*) Adequacy of manpower supply.

(*d*) Specific State Plan objectives and goals to which programs relate.

(*e*) Expenditures broken out into source of funding by the categories in item (a) above.

(4) The Legislative Budget Committee Preliminary Report suggests, in Appendix A, more specific types of management data that should be obtained on a systematic basis.

Additional information system suggestions, of a more operational nature, are that:

(*a*) Reports on all vocational education programs in the State should be coordinated from and collected in one State office, the Division of Vocational Education.

(*b*) The smaller local districts need more assistance in their planning and curriculum development activites.

(*c*) More effective coordination of district planning is needed so that local districts know what other districts are doing.

(*d*) The facts necessary for planning and evaluation need to be determined.

(*e*) The present administrative structure for vocational education should be given time to stabilize itself and implement appropriate evaluative procedures.

(*f*) Develop an adequate uniform system for ascertaining the effective of vocational education programs on the graduates from all institutions under SPI and SBCC.

(*g*) Make the goals and objectives of the State Plan more "operational" with clearer definition of terms so that progress towards their attainment can be better evaluated.

(*h*) Local administrators should be provided with training programs to help make the planning, programming and budgeting system and other information gathering mechanisms more effective.

(*i*) More specific definitions of what types of occupational programs and services qualify for which sources of state and Federal funding should be agreed upon.

RECOMMENDATION 3

The policy and activities of the Coordinating Council and the Division of Vocational Education should encourage more strongly the development of programs that better meet the special needs of the socio-economically and culturally disadvantaged, and those who have left school without an education sufficient to obtain and advanced in a job.

Rationale

There is abundant evidence (higher drop-out rates, lower academic achievement and greater unemployment) and general agreement among educators that traditional methods of instructing and motivating individuals in these special groups have not, and are not, working. Half way through the first fiscal year under the 1968 vocational education amendments we cannot expect fully developed programs designed to serve special needs to be operating statewide. (The New Careers Program at Bellevue CC, Operation Help at Newport and Operation Motivation at Pasco are good examples of what is meant by special programs for special needs).

In recognition of this need the 1968 amendment requires that "the amount used for such purpose (disadvantaged as defined in Sec. 122(a), (4) (A)) shall not be less than 15 percentum of the total allotment of such funds (appropriated under Section 102 (a)) for each State." [1] In addition Section 102 (b) authorizes a national appropriation of additional funds ($40,000,000) for FY-70 for programs for disadvantaged.

Some comments in the State Plan mention the disadvantaged, notably in Part II, p. 35 where the general objectives of programs for the disadvantaged are characterized as "the same . . . as for all others enrolled in vocational education programs" and efforts "to provide vocational education for greater numbers of disadvantaged" include preparation "for employment in the normal range of jobs" . . . "emphasize the role of home and family" . . . "reduce the incidence of unemployment" and "revitalize a large segments of unused manpower."

Since all programs, services and activities apply equally to the disadvantaged, under the above logic, the only specific goal or objective in the State Plan (Part II pp. 25–28b) oriented toward the disadvantaged is Washington State Goal 7, which reiterates the 80% enrollment goal set for the "student population" in Goal 1. Some Washington State goal should reflect the relevant principle enunciated in the 1967 report of the National Advisory Council on Vocational Education to the U.S. Senate Subcommittee on Education,[2] (the report which stimulated the 1968 amendments) namely:

> Those who need occupational preparation most, both preventive and remedial, will be those least prepared to take advantage of it and most difficult to educate and train. Yet for them, particularly, equal rights do not mean equal opportunity. Far more important is the demonstration of equal results. (p. 64)

Washington State Goal 7 specifies the "equal results" desired for the disadvantaged population. The policy to provide the disadvantaged with "special services within the regular program" (State Plan, Part II, p. 47) or "with special services to enable them to succeed in regular vocational education programs" (State Plan, Part I, Appendix, Districtwide Planning Guidelines, p. 2, Part C, Item 2, d) is still endorsed by the Advisory Council to the extent that such "special services" satisfy the needs of the disadvantaged individuals. But it is felt that for some disadvantaged individuals, and dropouts, whether disadvantaged or not, such special services directed towards entry into regular programs may not in all cases produce "equal results." Until the effort to tailor instruction to the individual needs of the student are fully developed and generally available to all students, special programs for special needs will be required.

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[1] PL 90–576, Sec. 122(c)(1).

[2] Reprinted in Evans, Mangum and Pragon, *Education for Employment*, Institute of Labor and Industrial Relations, Nat'l. Manpower Policy Task Force, Ann Arbor, 1969.

RECOMMENDATION 4

The allocation formulas for apportioning funds for disadvantaged and handicapped pupils should be modified to better allocate such funds on the basis of services local schools actually provide such pupils. Information necessary to determine whether or not the required percentages o fthe State's total allotment under Section 102(a) of PL 90-576 is being expended on programs for disadvantaged and handicapped individuals should be collected.

Rationale

The proposed apportionment formula appearing in the State Plan, Part I, Appendix, dated Sept. 1, 1969, on the third page following p. 24 and dated 7/1/69 states:

> Assuming that the disadvantaged and handicapped persons are uniformly distributed within the student population of each system, the apportionment for each of these purposes shall be in the same ratio as the student hours of the previous fiscal year. (Excluding Consumer and Useful Homemaking Education).

It is not known whether or not the assumption made by the Division of Vocational Education in the above formula for apportioning federal funds to the State Board for Community Colleges and the Superintendent of Public Instruction ("each system") is valid. In view of the generally lower average achievement level of such persons it would seem that the SPI should receive additional weighting. On the other hand, the higher level of occupational skills attainable in the Community Colleges may satisfy a greater need. It is good that the proposed allocation formula "will be subject to annual adjustment as experience warrants." (State Plan, Part I, Appendix, as cited above).

The federal funds received by the State Board for Community Colleges for disadvantaged and handicapped purposes are apportioned to the community colleges as follows, in accordance with SBCC's "October Agenda Item: Proposed Allocation of 1969-70 Vocational Funds."

> *1. Disadvantaged.*
>
> . . . the allocation to individual districts will be based on a formula derived from: High school dropout percent of service area as compared to statewide percent. Aid to Dependent Children as compared to statewide percent (such appropriations will require documentation as to expenditures for their intended purpose. Such funds cannot be approved for other purposes.)

[Insufficient information was available to use the proposed poverty level factor]

2. *Handicapped.*

Forty percent allocated on basis of each district's share of the state's 18–60 population, 60 percent allocated on basis of each district's share of total 1968–69 vocational hours, exclusive of consumer and useful homemaking.

The handicapped allocation formula is identical to the allocation formula for "all other purposes" which have no minimum funding requirement.

The Federal funds received by the Superintendent of Public Instruction for disadvantaged and handicapped purposes are to be disbursed to the local school districts and vocational-technical institutes upon receipt of documentation of costs incurred for these purposes.

Such allocation procedures have little correspondence with the first paragraph of the State Plan (Part I p. 1) which identifies the *individuals* to be served. In the absence of definitive data on the location and needs of disadvantaged and handicapped individuals, the current practices are, perhaps, the most equitable solution to the allocation problem for all parties concerned, except the disadvantaged and handicapped.

Under the above allocation practices and existing data resources the Advisory Council will not be able to ascertain whether or not the percentage allocation requirements of PL 90–576 are being satisfied. At a minimum, future evaluative reports of the Advisory Council to the Commissioner (USOE) will make an evaluative judgment on how well the State of Washington is satisfying these percentage allocation requirements. It is the responsibility of the Coordinating Council to provide the information upon which such a judgment can be based.

The Advisory Council realizes that in the overall vocational education program of the State, Federal funds under PL 90–576 contribute only part of the total funding for vocational education. Part of the impact of federal legislation which makes federal funds contingent upon certain reporting and percentage allocation requirements, is to encourage the improvement of the reporting and accounting systems of the states. In evaluating the information system of Recommendation 2 the Advisory Council will use the information on the disadvantaged and handicapped and procedures for funding the programs and services for these special populations as a major checkpoint.

RECOMMENDATION 5

The Division of Vocational Education should encourage and support proposals from local districts for approved special programs for high school dropouts to be funded from the 15% of the State appropriation of federal funds to be used for "persons who have completed or left high school." [3]

Rationale

The allocation procedure dated 7/1/69 allocates all of these funds "to the State Board for Community College Education," which in turn allocates them to the community college districts on the basis of a 40% weighting for 18–60 population and 60% for 1968–69 vocational hours.

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[3] PL 90–576, Sec. 122(a)(2) and (c)(1).

RECOMMENDATION 6

All agencies serving the educational needs of the State should increase planning and coordinating efforts aimed at promoting the potential of occupational education to enrich the entire educational system.

Rationale

The State Plan for FY–70 stressed broad goals and objectives directed towards positive change within traditional vocational education programs and services. Getting one's own house in order is a necessary prelude to entertaining others who are interested in how you function and how they can benefit from your services. In building on FY–70 State Plan, the first under PL 90–576, consideration needs to be given to continued development of new methods for improving the total educational system in ways that enable occupational education to make its potential contribution.

The major task of reorganizing the administration of vocational education at the State level has been accomplished. The new structure should be allowed to stabilize itself and get on with the business of exercising its administrative and coordinative responsibilities. But, in line with Recommendation 2, it is hoped that the coordinating function of the Coordinating Council/Division of Vocational Education will provide a close enough liaison with the agencies who contribute to occupational education in the State but with whom no formal contractural arrangement exists. (Contractural arrangements referred to are those contained in the State Plan, Part I, Appendix, with SPI, SBCC, Dept. of Employment Security, and the three party agreement among D. of VE, SPI and Div. of Vocational Rehabilitation). The contribution of the other public and private agencies in the State also must be assessed to: (1) avoid duplication where the need is being met, (2) set priorities where needs are not being met.

The ideal educational system could be characterized as a system which is responsive to the individual human needs of its students, teachers and administrators. Many people note that too often, the present educational system sets up academic excellence as the goal of the educational system so that individuals lose their identity in the concentrated efforts for academic achievement. When one reflects upon the facts that the fifth grade mathematics curriculum was designed with a view to maximizing the potential to produce Ph.D's in mathematics, and that only two out of every ten fifth graders even get a bachelor's degree, the claim that our present educational system should reverse its priorities gains some validity.

The national priority which generated the "new math" was readily recognized in the lower grades. The national goal to "Assure that each person exiting from school will have a salable skill," should have no less an effort in the lower grades.

Two of the top-level educational administrators of the State have made statements which indicate that they recognize and encourage the broader contributions which vocational education can make to the entire educational system. Dr. Bruno, the Superintendent of Public Instruction, pointed out, in his remarks at the first meeting of his newly appointed Statewide Advisory Committee on Vocational Education, that it is possible to "use the force of vocational education to make all education more relevant." In a similar vein and at the same meeting, Ernest Kramer, Executive Director of the Coordinating Council for Occupational Education, said:

> I would hope this committee will accept as one of its major targets the promotion of the concept that general educational competency can be acquired in many settings and that it is not necessary for us to assume that the only way you learn your English and your Math is in an English class or a Math class—and a traditional one at that. Rather, if we can accept the concept that a practical vocational lab can also contribute very meaningful to the general educational development of the students and de-emphasize what has been our preoccupation with a academic curriculum in the classical tradition, then I think it will be quite possible that more students will be motivated in school and our dropout ratio will decline.
>
> Coupled with this, if we can accept the fact that many students learn more effectively through a practical setting than they do in a verbal abstract setting, the combined effect of these modifications in our educational tradition will certainly be to the ultimate good of more and more people.

The intent of the Advisory Council's Recommendation 6 is to encourage the activities which such words should inspire. Some particular areas which need attention if the desired positive changes are to be facilitated are discussed in the following paragraphs.

1. Kindergarten through Eighth Grade

The definition of a vocational education program, ***upon which funding is based***, restricts support to those regular instructional programs in grades 9 and above which lead to an occupational competency. Further, the criteria for setting the relative priority of local applications for expected federal funds (under Part B of PL 90-576) is applied in such a way that "An application which does not contribute to manpower needs would receive no weighing in this category (contribution to manpower needs) and would not be further considered." (State Plan, Part I, p. 28). These funding procedures provide an operational definition of what vocational education is now.

Some legal basis and policy decisions are needed to provide the definitions upon which the funding required to insure the development and continued operation of occupationally oriented programs which do not satisfy the age and job entry skills specifications of present vocational education programs. Perhaps the recently appointed Statewide Vocational Education Advisory Committee of the Superintendent of Public Instruction could give impetus to determining the most feasible way to finance the development and continued operation of such programs, particularly in the grades K-8.

2. Guidance

The State Plan should include specific statements of occupational guidance and counseling goals and objectives.

Assisting students in making career choices is central to the success of their education. The development of the knowledge and attitudes required for a student to make the proper career choice should start before he reaches the ninth grade. This puts such inclass guidance oriented activities as world of work courses out of the traditional domain of vocational education. Training programs for all school career counselors should include a substantial amount of content related to the requirements of occupations not requiring a four-year college degree.

In line with the importance of guidance, the broadness of its responsibilities and its necessary concern with the K–8, as well as the grades 9–14, student population and with the professional education staff, it is recommended that the guidance office of the Program Development Section be staffed with qualified individuals at the earliest possible date.

Project NEED, an in-service workshop program, was designed to inform secondary and post-secondary students about occupational and training opportunities in the northwest through informing counselors, teachers and administrators of these opportunities. It has been so effective in interesting the workshop participants that there is talk of expanding it to include parents and elementary students in its target of influence. It is too early to determine the real effect the workshop has had in the schools, but the in-school activities which the participants carry on as part of the program insures that their work doesn't stop after the thirty hours of the workshop. Project NEED does appear to be contributing to the alleviation of the real need to make professional educators more aware of the potential of occupational education.

3. Public Information

Everybody in the state needs to be more informed about vocational education needs and programs and plans for new directions and new opportunities. Particular target groups called out in the State Plan are: all professional education personnel, parents and lay public (in D. of VE Objective 6) and local leadership (in D. of VE Goal 10). Special efforts should also be made to inform employers that today secondary vocational education is more than the old industrial arts shop whose only relationship to jobs had to do with its teachers and promoters. Teachers, teacher-trainers and curriculum developers should be more informed on the potential of occupational education to help students acquire basic academic competencies. Vocational educators themselves can contribute greatly to the "favorable attitudinal climate" (D of VE Goal 7) by being more conscious of the practical, public interest aspects of their work with students and making greater efforts to have them publicized.

4. Administrative Information

More specific definitions of what types of programs qualify for which levels of state and federal funding are needed by the local districts. As pointed out under item 1 above the type of regular program which qualifies for weighting and reimbursement is the only type of vocational education currently universally recognized in financial terms. Other types of "occupational" education are designated and funded as "special services", "exemplary" or "research" programs. Questions arise for example, as to where programs developed and taught by interdisciplinary teams will find continuing sources of funding—and teachers. Ideally, occupational education in the grades should not be forced to compete with the regular academic program for funds, but should be so closely interwoven that it is indistinguishable from the regular program. Yet it cannot be so indistinguishable that its contribution is overwhelmed again by the overly academic. Initially, at least, extra funds will be required for extensive curriculum development, resource material, teacher and counselor training and world-of-work familiarization "labs."

The problem boils down to defining programs and sources of funding in such a way that occupational education programs, presently under special sources of funding, can be funded as part of regular and accepted funding procedures.

The Annual Districtwide Plan for Vocational Education, 1970–71 provides descriptions of five types of programs in terms of the main objective of the program and whether or not the students served are regular, disadvantaged or handicapped. The five types of programs are described in terms of the type of service to be provided the students, as follows:

1. Ready to enter labor market with salable skills 1970–71.
2. Ready to enter advanced vocational education programs 1970–71.
3. To be provided with programs, services and activities which assist in making career choices.
4. To be provided with special services to enable them to succeed in regular vocational education programs.
5. To be provided with preparation for homemaking or the role of homemaker—wage-earner.

It is hoped that the State Board for Community Colleges and Superintendent of Public Instruction can work together on the definitions suggested above, and come up with mutually agreeable definitions which provide a basis for collecting comparable data. (One forseen problem area is that SPI might interpret "advanced vocational education programs" as those offered in a community college, whereas SBCC might equate the same phrase to its adult supplementary programs). Such definitions appear to be essential to determining appropriate sources of funding of programs not included under items 1 and 2 of the referenced table. As pointed out before, the programs satisfying the agreed upon definitions and offered by agencies other than SPI and SBCC should also be included in the reporting system.

The definitions of occupational programs in terms of the individuals to be served and the type of training which is the objective of the program can provide a basis for evaluating the progress towards the goals and objectives of the State Plan. But the contributions, in terms of information, analysis, funding and evaluation by each of the agencies involved in vocational education needs further clarification. Specific responsibilities should be determined. The role of the Advisory Council in evaluation has been outlined in the introduction to this report.

5. Training of Professional Personnel

All of the preceding recommendations and suggestions imply modification or enlargement of current vocational education effort. Actualization of the implied activities will depend largely on availability of sufficient numbers of properly trained personnel. If Community Colleges are to fulfill the vocational education responsibilities inherent in our State system, systematic plans for training teachers and directors are particularly urgent. Since most occupations are becoming more technical there is urgent need for preparation of teachers who can help pupils acquire up-to-date technical work competencies.

Assessment of most current High School and Community College vocational instructional programs also indicates a need for directors and supervisors who have more capability for assessing contemporary needs and for developing up-to-date instructional programs.

The State has a long history of support for preparation programs for vocational education personnel, but emerging needs require intensification of current efforts to plan and implement programs for training vocational teachers, counselors and administrators.

RECOMMENDATION 7

We recommend that the State Board of Education, the State Board for Community College Education, the Superintendent of Public Instruction, and the State Director of Community Colleges reorganize their structures in such a manner that vocational education will have divisional rather than unit status and that the person whose sole responsibility is vocational-technical education be at the assistant superintendent and assistant director level.

Rationale

This recommendation is quoted directly from "Report and Recommendations of the Joint Vocational Education—Vocational Rehabilitation Study Committee." It is included here to stress the Advisory Council's concern for strong, efficient coordination of vocational education activities and because we feel such internal organization would contribute to more effective coordination.

The Joint Study Committee gives the following rationale for this recommendation.

> **Prior to the Community College Act of 1967, vocational education and vocational rehabilitation had divisional standing in the office of the Superintendent of Public Instruction. All of the personnel involved in those two functions were transferred by the Community College Act to the Coordinating Council. In 1969, concerted efforts were made to dissolve the Division of Vocational Education and to have the staff split and reassigned by transfer to the Superintendent of Public Instruction and the Director of Community Colleges. (H.B. 739). During that legislative attempt, the Director of Vocational Education, by contractual agreement with the Superintendent of Public Instruction and the Director for Community Colleges, pledged to reassign by transfer some personnel to their two agencies. These transfers have been accomplished. However, in both instances the transferred vocational education personnel have been placed in a unit status organizationally within a main division concerned with overall curriculum and instruction. We do not believe that this kind of downgraded arrangement was intended by the Congress in the Vocational Education Amendments of 1968, by the Legislature in the Community College Act of 1967, or by the increasing number of persons and agencies currently expressing such great concern over the status of vocational education and vocational rehabilitation in this State. We believe that, if the Superintendent and the Director are to administer and supervise vocational education within their separate agencies, they must provide the kind of emphasis intended by the Congress and the Legislature in the aforementioned Acts.**

WEST VIRGINIA

Chairman—Rob Roy Walters

RECOMMENDATIONS

1. Guidance/Introduction to the World-of-Work

The Advisory Council recommends that vocational programs for high schools should be preceded in the lower grades by instruction in basic economic education and orientation to the world-of-work. At the high school level there should be a continuation of orientation to the world-of-work and instruction which will expose students to broad fields of occupational patterns in business and industry and develop some basic skills for entry level jobs upon completion of the high school program.

These occupational education programs should be supported by a strong program of vocational guidance.

Introduction to the world-of-work at an early age will allay the prevalent attitude that those students participating in a vocational-technical curriculum are destined to a social and economic life at lower status than students who are preparing to enter professional fields.

All high school students should be provided some experiences, education and guidance dealing with occupations and careers.

An assessment of each child's potential should commence at a time early in his educational life. Counseling should assume a level of importance equal to the acquisition of language or computational skills.

Once a student has dropped out, the school has little or no contact with him. Counseling service should be made available and contact should be maintained at least to a time when direction has been well established.

In too many secondary and post-secondary institutions lack of sufficient counselors or excessive counselor load prohibits adequate counseling. A great effort should be made to comply at least with the North Central Association counselor-student ratio recommendation of one to 300.

Guidance should be expanded to include job placement. Also Council desires to note that counseling is predominately college oriented. Consideration needs to be given to orienting vocational-technical curricula to job opportunities in the region.

2. Establishment of Public Information Director under Director of Vocational-Technical Education

The Advisory Council recommends that the State Department of Education place on their staff a qualified director of public information. The specific duties of this office would be primarily directed toward preparing a state-wide campaign to promote a positive attitude toward vocational-technical education. This office would also prepare films, programs, speeches and articles for television, radio and press, for state-wide coverage to bring vocational-technical education into a parallel thought/image with that of academic education.

3. Alliance with Industry

The Advisory Council recommends a closer relationship be created between industry and education on all matters concerning vocational-technical curricula and program development.

Training programs must be developed that are compatible to the needs of industry.

A human resources coordinator might be assigned in each county as a person who would serve as a liaison between industry and schools bringing into the classroom knowledge of the world-of-work.

The Advisory Council plans to involve itself with advisory councils existing within the counties to promote greater exchange of ideas.

4. Teacher/Counselor Training

The Advisory Council recommends that vocational teachers training programs be appraised and reevaluated. An inadequate number of teachers and guidance counselors are being developed who have a solid vocational-technical orientation.

A close working relationship should exist between the State Department of Education and Board of Regents concerning teacher training and certification requirements.

5. Equality of Education Opportunity

The Advisory Council recommends equality of education throughout the state of West Virginia must evolve from concept to fact. No child should be denied education opportunity because of birth, geographic location, social or economic status.

6. Finance

The Advisory Council recommends an estimate of allotment distribution by the State Board of Vocational Education should be in the hands of county superintendents by March 1 of each fiscal year. Inclusive in the report shall be a detailed, financial disclosure and formula demonstrating the means by which the allotment distribution figure is calculated.

The existing law which prevents financial reimbursement of one county to another for educational services is archaic and inhibitive and should be abolished.

The comprehensive concept of vocational-technical education should be instituted where economics render it feasible.

The State Board should make a critical evaluation of the salary schedule of the Department of Vocational Education staff positions. The existing salary schedule is not commensurate with responsibilities.

WISCONSIN

Chairman—John N. Kramer

Consultant—Eddie Walker

CHAPTER XI—RECOMMENDATIONS

Readers of this section should understand clearly that the writers of the report are impressed with the vitality of Wisconsin's vocational and technical education program. Accomplishments are highlighted throughout the report, in fact the document in assessing the program attests to its effectiveness. With this in mind the recommendations are written in an attempt to suggest further efforts to be taken to expand or strengthen an already successful program.

Early in discussions relating to the assessment, Council members and the study directors were confronted with the problem of the breadth of the study. Difficulties were envisioned with limiting it only to the programs or activities funded with Federal funds and it, therefore, seemed more appropriate to address the study to the total program. It also seems clear that this was the intent as reflected in the Act and guidelines of the National Council which became available after the study was underway.

Insofar as possible the recommendations have grown out of the considerations found in previous chapters. However, several may reflect the observations of the Council and study staff which in no way depreciates their value, even though they may not be substantiated by numerical or other quantifiable data.

While the members of the Advisory Council suggested a number of changes in the report to the study director which have been incorporated, the study, except for the recommendations may not be compatible in all of its detail with Council members' views collectively or with the view of each single member. The recommendations, however, were refined by the Council during a two-day meeting each recommendation being approved by the Council.

The several recommendations are followed by a short descriptive explanation designed to clarify or provide rationale for the recommendation.

1. RECOMMENDATION

That a new Federal Department for Education be established with Cabinet status.

> *Statement*—This recommendation is based on two concerns: (1) that education be more strongly represented at the Cabinet level which can best be accomplished with a secretary who has a narrower span of control than the present Secretary of Health, Education and Welfare and (2) that vocational education and manpower type activities should assume a more important place in educational matters at the Federal level.

2. RECOMMENDATION

That the State Board and the National Advisory Council work through the officials in the Department of Health, Education and Welfare and in the Congress to shape manpower legislation and its administration in such a manner that the needs of youth and adults can be met most efficiently.

Statement—Proposed legislation calls for new structures and channels for administration of programs. It is clear that Wisconsin through their expanding system of vocational, technical and adult schools in cooperation with other agencies can provide training services efficiently.

3. RECOMMENDATION

That the State Board of Vocational, Technical and Adult Education and leaders in vocational education become appraised of the Governor's Commission on Education (Kellett Commission) recommendations and become involved in the policy decision process in order that the best interests of training for employment can be served.

Statement—While it seems abundantly clear that the intent of the Kellett Commission is to strengthen vocational and technical education opportunities, safeguards must be built into any new organization plan so that the emphasis on vocational and technical educational will not become depreciated.

4. RECOMMENDATION

That the State Board of Vocational, Technical and Adult Education continue their efforts to make vocational and technical education available to all persons who have need for such programs.

Statement—The organization of the State effective July 1, 1970 in such manner that all areas are included in a vocational, technical and adult education district is a major accomplishment and should provide the structure through which comprehensive service and opportunities are made available. However, a major commitment will be needed to develop comprehensive centers in all districts and because of the large geographical areas included additional efforts and finances will be needed to develop fully the outreach services.

5. RECOMMENDATION

The Department of Public Instruction should continue to explore means to expand Vocational Education programs at the secondary level. Organizational arrangements should be encouraged which would provide a larger school population base than is presently available in many local districts.

Secondary school districts should explore fully possible cooperative arrangements with other secondary school and post-secondary districts. Contractual services should be encouraged.

Statement—The problem of how to provide a range of vocational education opportunities particular in school districts with limited population is a perplexing problem. No single answer has been identified. Several possibilities exist however among which are: (1) consolidation of schools, (2) cooperative arrangements among schools, (3) the development of area schools, and (4) contractual arrangements with post-secondary districts.

6. RECOMMENDATION

That greater effort be made to extend vocational opportunities at the high school level in light of the success of high school graduates completing programs and the somewhat limited offerings available.

Statement—Follow-up studies attest to the success of the high school vocational education program. However, as shown on Map 3A, many youth, including a majority of those in the less wealthy northern parts of the state, presently are in schools where vocational programs are not available.

7. RECOMMENDATION

That in phasing out the continuation school in Milwaukee, every attempt be made to not depreciate the services to this group of students.

Statement—The only continuation school program operated in the state during the 1969–70 school year was in District Nine in Milwaukee. The evidence is quite clear that a real service was being rendered to a sizable group of disadvantaged students. With the shifting of responsibility to the public school system for high school age youth, every effort should be made to provide an equally effective program for this group.

8. RECOMMENDATION

Cooperation should be continued in working with the State Rehabilitation Service as a means of serving disadvantaged and handicapped youth.

Statement—Table 4.24 gives evidence of the fine cooperative working relationship with the Rehabilitation Service. Such efforts should be continued and strengthened.

9. RECOMMENDATION

Consideration should be given to establishing a system of approval and reporting of enrollments, graduates and other data on private schools providing vocational and technical education.

Statement—Currently little information is available on private vocational and technical schools including their numbers, location, enrollments or output. This type of information is desirable for planning purposes directed to serving the State's needs.

10. RECOMMENDATION

The State Board should cooperate fully with the State Manpower Council, the Interagency State Planning Council and the Governor in perfecting, at the earliest possible date, a proposed system which will permit the pooling of manpower resources and in developing man-

power program priorities designed to be of optimum assitance to students, counselors, and administrators.

Statement—The State Advisory Council, while impressed with present relationships and efforts including several specific projects to assist state and local administration in program development, will watch with interest the developments in this area.

11. RECOMMENDATIONS

There should be available in the State Board staff section dealing with manpower projections, sufficient professional personnel to make possible valid labor market data of maximum help to vocational, technical and adult students, and to program planners, developers and administrators.

Statement—The absence of financial resources at this point in time places great responsibility upon the state staff to develop active working relationships with the Employment Service that result in securing maximum program related labor market data.

12. RECOMMENDATION

The State Board of Vocational, Technical nad Adult Education in cooperation with the Wisconsin State Employment Service should immediately "gear-up" to receive, analyze and interpret 1970 census data which is to be made available on tape ahead of printed census reports. Such information as has relevance for program planning and development should be transmitted to the districts as early as possible. Should present staffing at the state level make it impossible to transmit pertinent data on an almost "instantaneous" basis, then effort to accomplish this objective should be undertaken very early.

Statement—Facts and figures from the 1970 census will impact heavily on program change; it is expected program planners and developers will have access to many demographic details not hitherto available. What is more, these details will become available to alert state departments more promptly than was formerly the case. This will be possible through the availability of tapes which can be in the hands of educators "instantly" by comparison with the printed data which formerly required one or more years for their arrival from the Census Bureau.

13. RECOMMENDATION

That the State Board review its method of determining reasonable tax effort.

Statement—See Section, *Reasonable Tax Efforts*, Chapter VI, for a discussion of this recommendation.

14. RECOMMENDATION

That the State Board give consideration to and explore the possibility of using adjusted gross income per capita per student as a measure of wealth for purposes of computing aids.

Statement—See Section, *Ability to Pay*, for discussion.

15. RECOMMENDATION

The State Board of Vocational, Technical Education and the National Advisory Council should seek to secure amendments to Part H—Work Study Programs which would liberalize the restriction on hours worked and total earnings.

Statement—The limit of 15 hours work per week and $350 per year is too restrictive. See discussion in Chapter VI.

16. RECOMMENDATION

That the State Board and National Advisory Council strongly urge Congress to pass Appropriation Acts promptly and at levels that more nearly reflect authorizations. Appropriation Acts should be passed prior to the beginning of the fiscal year for which funds are to be spent.

Statement—Late appropriations make planning difficult and are costly to local districts who may be required to borrow money because of funding delays.

17. RECOMMENDATION

That State appropriations for VTAE Programs in view of increasing enrollments and expanding programs be increased in order that a greater share of the costs be borne by the State, particularly in view of the fact that a number of districts are reaching their tax maximum.

Statement—Presently, the total State and Federal subsidation of programming is at approximately the 25 percent level. Consequently, the district is responsible for more than three-quarters or 75 percent of the programming costs. Should not vocational and technical post-secondary education be supported by State funds at somewhat the same level as other higher education programs? Many districts are reaching the 2 mill limit and will be unable to meet demands for vocational education.

18. RECOMMENDATION

That specific State funds be appropriated to support vocational education programs at the secondary level.

Statement—Currently the only funds available to promote vocational education programs at the secondary level are Federal funds, since State funds are not specifically appropriated for this purpose. Federal funds must cover the cost of the vocational education staff in the Department of Public Instruction as well as reimbursement of local programs. While reimbursement rates from Federal funds alone are presently large enough to pay a reasonable share of the additional cost of vocational programs as compared to general education programs, only a fraction of the need is presently being served in Wisconsin.

19. RECOMMENDATION

A Study should be initiated by the State Board to determine the extent to which financial barriers exist for youth who might otherwise attend vocational and technical schools and the extent to which present financial aids are adequate.

Statement—Data in Table 6.10 and the discussion related to it would suggest that compared to other students in other post-secondary programs, vocational students are not fairing too well. There is no data to determine to what extent lack of financial aid prohibits students from entering vocational and technical programs.

20. RECOMMENDATION

The Department of Public Instruction should consider changing their method of computing operational expenditures per student in order that for some school districts Federal funds not be used to supplant State support funds.

Statement—See "State DPI Allocations to Local Education Agencies," Chapter VI. The present method would appear to be questionable at best and may not be in compliance with the intent of the Federal Legislation.

21. RECOMMENDATION

A coordinated management information system utilizing the most effective computer techniques be established by the State Board.

Statement—After surveying the financial and other data of the State VTAE system, it was apparent that a multitude of information and data of various kinds is needed to effectively meet Federal guidelines, distribute funds and build local programs. A management information system with a computer orientation is necessary to effectively handle all those data and to provide state and local agency personnel with the necessary information to make effective decisions.

22. RECOMMENDATION

That the budget of the State Department of Public Instruction include sufficient additional funds to provide more adequtae supervision of vocational and technical education programs with more frequent program visitation and better communication.

Statement—Responses from LVEC's indicated that additional on site visitation and supervision were needed by the State Department of Public Instruction staff. This is understandable with the large increase in program which means many LVEC's are new and are working for administrators who have not had vocational education programs in their schools.

23. RECOMMENDATION

That efforts should be made to streamline the project method process of allocation of funds.

Statement—An excessively large amount of staff time in both the Department of Public Instruction and the State Board of Vocational, Technical and Adult Education has been used for project review. It seems appropriate for administrators to review this time allocation in light of other needed leadership activities.

24. RECOMMENDATION

That the State Board consider contracting with one or more teacher education institutions to survey needs of part-time teachers and develop plans for their professional growth.

Statement—Teachers of apprentices in evening schools and those handling special classes need contact with skilled teacher trainees if quality instruction is to be the standard.

25. RECOMMENDATION

Certification standards should be continually reviewed giving particular consideration to including wage earning experience in the occupation as a part of the standard elements that assure the occupational competence of prospective teachers.

Statement—The State Board of Vocational, Technical and Adult Education and the State Department of Public Instruction require special education courses for certification; however, it would appear that in some cases degrees and courses are weighted more heavily than experience and proven occupational competency.

26. RECOMMENDATION

There should be increased involvement on the part of the several teacher training institutions in the Professional Growth Week and ways should be explored by the State staff to accomplish this end. The involvement should provide the institutions with feedback on a wide range of topics and areas having impact on leadership development on a long range basis.

Statement—Future reports from the teacher training institutions should provide insights into their role in the up-dating of teachers, coordinators, and supervisors. Their role in the structuring and carrying out of phases of the Professional Growth Week should be delineated as well.

27. RECOMMENDATION

A study should be undertaken to determine ways to make optimum use of the teacher training institutions in preparatory and in-service programs throughout the State. Involved in this study should be an assessment of the adequacy of the in-service professional development activity presently carried on by local school administrative units.

The growth in vocational services to greater numbers of people whose needs span a broad spectrum of occupations necessitates consideration being given to the more generous allocation of Federal and State funds for use in the preparation of professional personnel.

Statement—The institutions of higher education possess much greater know-how and capability in the preparatory and in-service teacher training areas than is being utilized. The needs of teachers, supervisors, coordinators and administrators are sufficiently broad and complex to require the best efforts of the institutions, agencies, and the State staff members.

28. RECOMMENDATION

Continued emphasis on the development of counseling and guidance programs with an emphasis on vocational aspects is needed. Such services should be available to all youth and adults in all parts of the State.

Statement—there is strong evidence that the efforts made possible through a combination of Federal funding sources, have successfully strengthened the guidance and counseling program. The number of counselors employed has increased; however, many schools are still without such services. Data are not available to evaluate the emphasis counselors are placing on the vocational aspects versus general guidance; however, because of the type of training counselors have received in the past and the traditional guidance emphasis on helping youth select the right college, there may be some question as to the amount and quality of guidance related to selecting vocations.

29. RECOMMENDATION

That efforts be continued to work toward articulation of secondary and post-secondary vocational and technical education programs.

Statement—Programs at the two levels should be complementary, not competitive. A planned transition from high school vocational programs into post-secondary vocational and technical programs should be encouraged. Programs at the post-secondary level should be flexible enough in their organization to accommodate students advanced placement or other means which have developed vocational knowledge and skills through another program or through employment.

30. RECOMMENDATION

The State Board staff should work aggressively to expand training capability in the health occupations.

Statement—This report has not dealt in detail with training needs in the various occupational areas; however, some consideration was given to the health occupations. It seems clear that neither in Wisconsin or in the Nation as a whole are enough persons being trained in health occupations at less than baccalaureate level to meet health needs. It, also, seems clear that there are persons available for training if training opportunities were expanded.

WYOMING

Chairman—M. Dale Ensign
Ex. Secretary—Clinton L. Harris

INTRODUCTION AND SUMMARY

The initial State plan for Occupational Education was established in keeping with Federal guidelines. Owing to the timetable, the Advisory Council was unable to become personally involved in directing the State plan. Furthermore, it was determined by the Advisory Council that the federally directed State plan did not anticipate the circumstances and essential planning required for programs of Wyoming.

It is expected that next year's evaluation, as measured against a new State Master Plan, will be far more meaningful than this 1970 evaluation against the federally oriented State plan. In our judgment, the federal format is a poor standard for this State.

The Advisory Council has encouraged the usage of the term "Occupational Education." This was done in an effort to improve the existing image often associated with vocational-technical education programs. Therefore, in this report, the term "occupational" is to have the same meaning as the terms "vocational" and "vocational-technical."

Following is a summary of the initial priorities considered essential to the development and growth of Occupational Education in Wyoming. Following each priority, is a brief evaluation of the progress of the past year.

1. Establish goals, objectives, priorities and plans for long term planning of Wyoming's Occupational Education.

Significant progress has been accomplished in the development of a five-year plan with measurable goals, objectives and priorities, utilizing PERT programming and other up-to-date planning techniques. Area planning between secondary schools, community colleges, various agencies and employers was begun.

2. Develop comprehensive Occupational Education programs designed to begin in kindergarten and continue through the community college, university and adult continuing education.

State Department of Education and its Occupational Education section have exercised resourcefulness and imagination in the development of Comprehensive Occupational Education programs which have gained widespread interest. Parts of the program have begun.

3. Re-enthrone and impress in the minds of the people of Wyoming the dignity of work and vocational opportunities.

The Advisory Council held 11 public hearings along with State staff to begin to change the image of Occupational Education as necessary for all children. The Public Relations Sub-Committee

of the Advisory Council has issued several press releases. They have appointed occupational educators to serve as liaison workers who are responsible for disseminating occupational information. Still, public relations and publicity need to be stepped up.

4. Improve the human resources development programs of the State.

(*a*) Closer liaison was maintained among the State Board, the various State and federal educational agencies, Employment Service, C.A.M.P.S., vocational rehabilitation, Manpower Development, and the State Office of Economic Opportunity and OEO. Positive effects were attributed to the State's community colleges becoming the major preparation stations for manpower students.

(*b*) Two Boards of Cooperative Services were organized by school districts who worked together and cooperated to provide educational services. These services include occupational education, adult education and services to exceptional children.

5. Determine the effects the Vocational Education Amendments of 1968 had on the State.

(*a*) New Occupational Education programs were designed and implemented in five major areas:

1. Cooperative Occupational Education at secondary and community college level.
2. Programs for the disadvantaged.
3. Programs for the handicapped.
4. Consumer and homemaking programs.
5. Work study programs.

(*b*) Recent redistribution of federal funding has created serious setbacks in occupational education programs, particularly in community colleges. The term "disadvantaged" is as well applied to enterprising youth attending small, often isolated rural schools as to those minority groups attending city schools.

6. Increase the effectiveness with which the people and their needs are served.

Many new occupational programs were begun during the past year. These programs are serving more public school and community college students, adults, disadvantaged and the handicapped than ever before in Wyoming. Even with this recent progress, many more people need occupational training and service, using new and improved techniques. A more detailed study of the effectiveness of these new programs will be reported at a later date.

Greater coordination is needed between secondary, post-secondary and community colleges; i.e., State Board of Education, Community College Commission, working as an independent unit; and the University of Wyoming, functioning as another independent unit.

7. Within the State, improve the matching of employment opportunities with occupational services.

The State Department of Education is fostering cooperation at the regional levels between employers, public school districts and community colleges. More programs are matching employment demands. Greater attention is needed to develop lists of present and future job opportunities in order that schools may respond to employment needs. Little duplication of programs is noted at the community college level due to the coordination between community colleges. The most serious impairment to the action is lack of funds.

RECOMMENDATIONS

A. The Division of Occupational Education, continuing to move forward, should further implement the *Comprehensive Occupational Education Program Design*, K–12, Community College and continuing education.

B. The State Department, in cooperation with local districts, should continue to develop an evaluation and planning system which will offer continuous assessment of occupational program effectiveness and efforts.

C. Cooperative systems, i.e., boards of cooperative services and community college agreements, should be strengthened and encouraged to avoid duplication of occupational education programs.

D. Recommend the National Advisory Council and the U.S. Commissioner of Education revise the federal system for allocating federal funds. In the future, broader guidelines should be established, whereby the State Department of Education and the Division of Occupational Education could identify their program needs and could devise a local formula for distribution of federal funds.

E. Concerning disadvantaged youth, we recommend to the National Advisory Council and U.S. Commissioner of Education that the term "disadvantaged" be revised to include children in small rural, geographically isolated schools, where there are inadequate funds to develop and support occupational offerings. The present definition and guidelines are directed toward urban centers.

F. Extend and expand programs for disadvantaged and handicapped youth.

G. It is not always possible to build elaborate and expensive occupational facilities; therefore, we encourage the development of cooperative education programs, utilizing the community classroom philosophy.

H. Elevating the image of occupational education and the dignity of work must be launched through comprehensive education. The endeavor must recognize employment as an integral part of education.

I. The University of Wyoming and the Division of Occupational Education should provide in-service workshops for all occupational education staff and non-occupational educators.

PART C

STATEMENTS OF STATE DIRECTORS OF VOCATIONAL EDUCATION

ALABAMA

State Director—T. L. Faulkner

I. RESEARCH

RESEARCH ACTIVITIES CONDUCTED IN ALABAMA UNDER PROVISIONS OF THE 1968 VOCATIONAL AMENDMENTS (PT. C)

Type of research activities	Number completed	Number under way
Manpower needs and Utilization	2	12
Development of management information systems	1	2
Research training seminars and workshops	4	----
Curriculum research	1	4
Developmental projects for disseminating research information	1	1
Pilot programs	----	2
Program evaluation studies	1	2
Research utilization seminars	2	----
Research coordination unit	(1)	----

[1] Continuing.

Appropriations and expenditures for Alabama under 1968 vocational amendments, part C—research

Federal appropriations:	
Fiscal year 1970	**$17, 228**
Fiscal year 1971	**398, 237**
Expenditures, fiscal year 1970:	
Federal	**$17, 228**
State	**93, 410**
Local	**25, 242**
Budgeted expenditures, fiscal year 1971:	
Federal	**$398, 237**
State	**79, 878**
Local	**34, 793**

II. PROGRAMS FOR STUDENTS WITH SPECIAL NEEDS

WASHINGTON COUNTY—LEROY HIGH SCHOOL

The program was organized in 1969–70 school year. Ended year with 52 students enrolled in grades 9–12, with enrollment by grades of 13, 10, 18, and 11, respectively. The teacher organized the classes in Agribusiness and Basic Trades. All students were identified by tests given Rehabilitation Service and local personnel. This is a cooperative type program with Vocational Agribusiness, Rehabilitation Service, and Special Education. Representatives from the Rehabilitation Service, and Special Education have been consultants in setting up and conducting the program.

The Rehabilitation Service provided $4,000 in equipment and consumable supplies at the beginning of the program. Special course outlines were developed for three classes.

1970–71 School Year—

Total enrollment:	
Grades 1–8	19
Grades 9–12	40
Total	59

The program has progressed since last year in the following respects:

A. Additional equipment—new building plan under way;

B. Evidence of better planning by teacher;

C. Monies provided for travel for supervision of students. ($250.00);

D. Administration giving program more support.

JEFFERSON COUNTY—OCCUPATIONAL RESEARCH CENTER BUSINESS AND OFFICE OCCUPATIONS

Students served by this unit are of various ages and have many *different types of handicaps. They may be grouped into the three following* classifications:

(1) Students with previous training who need review and redevelopment of skills in order to go directly into jobs.

(2) Students who need special, individualized, basic instructions and training to go directly to work in lower level jobs.

(3) Students who have had no previous training in Business and Office Education, but who may be given basic orientation and initial training and transferred to technical schools for additional or advanced training before they go to work.

After students are accepted by the ORC, they are screened by an evaluation group and are placed in training in the occupational area where it is thought they are most likely to succeed. Students entering the BOE classes spend the first few weeks in an orientation or evaluative situation. If a student has previously had BOE training and in the opinion of the BOE teacher can redevelop these skills, this student is given the individual instructions necessary to go directly to work.

If, after the evaluative period, the teacher feels that certain students would be capable of doing certain lower level office jobs, special individualized instruction and training is provided.

After spending an evaluative period in the Business and Office Education class, some students are guided or transferred to other occupational training areas offered at the Occupational Research Center.

PICKENS COUNTY—REFORM, CARROLTON, ALICEVILLE BUSINESS AND OFFICE EDUCATION

There are three Business and Office Education units organized in Pickens County to serve those disadvantaged students in this system interested in office occupations. Before monies were made available through the 1968 amendments of the Vocational Education Act, there was no vocational BOE training available for students in this area.

Training for these students starts at the tenth grade level. Each student selects an occupational objective and the teachers try to help each reach his objective by individualizing instructions as much as possible.

Students spend a two-hour block of time each day with the teacher beginning at the tenth grade level and continuing during the eleventh and twelfth grades. This block of time gives the teacher the opportunity to be flexible enough with instructional approaches to meet the need of most of the students who can profit from BOE training. Most of the instructions are planned for training students for clerical occupations; however, in some individual situations students are given shorthand and other advanced training for stenographic occupations. Since these units have been operating for approximately one year, the follow-up of graduates would not give a complete picture of success of the program.

Success of the programs at this time might be better measured by the many requests to enter the programs made by students who have an interest in this field of training, but who have not had the opportunity for vocational BOE training earlier.

TUSCALOOSA COUNTY—BRYCE TREATMENT CENTER

The Bryce Treatment Center is located about ten miles from the Bryce Hospital. Students are bussed from the hospital to the center each day at the hospital's expense. Only trainable students are allowed to participate in the program at the center.

The program was begun last year after the hospital both purchased and constructed an $8,000 greenhouse. A small building near the greenhouse was renovated and made into a classroom. Plans are under way to start a nursery near the facility.

The success of this program can be attributed to the teacher, Mr. H. M. Dunn. He has been in the greenhouse, landscaping and nursery business all of his life and he has connections all over the state. Due to Mr. Dunn's connections, every client completing the course last year has been placed and is working full time. So far, fourteen clients have completed the training and are employed in the field for which they were trained. Mr. Love, a Rehabilitation Service representative at Bryce, calls it amazing. He stated that Mr. Dunn was doing a better job placing clients than his Rehabilitation Counselors.

Mr. Dunn is offering a general greenhouse course for one group and a specialized course in floriculture for another group. Several females are enrolled in the floriculture class and after they complete the course, they are placed on a trial work adjustment period with local florists. Students attending Mr. Dunn's classes are also receiving practical experience by landscaping several schools in the Tuscaloosa area. They have completed one school and are presently working on four more. Dr. Sprayberry, County Superintendent, is very impressed with the program and the professional job being done on the landscaping projects.

There are fifteen clients presently enrolled in the program. Mr. Dunn has jobs waiting on any person he recommends.

This is an excellent program that is serving a needy group. Everyone in Vocational Education should have an opportunity to visit this program.

MONTGOMERY COUNTY

The original intent of this program was to provide vocational exposure to, evaluation in and practical skill and related knowledge to primarily Educable Mentally Retarded Students, ages 14 to 18, in a cluster approach. This was originally to be handled in four junior high schools in which a half-day would be spent in the academic portion of the program; the other half day to be spent at a centrally located laboratory (similar to a day trade situation-only in clusters rather than in a specific training situation). This program was initiated in November of 1969.

The intent and the implementation remain identically the same; we have recently, however, increased our units. As of Monday, March 1, 1971, we will be serving eight junior high schools on the same basis as noted above. (4 a.m. lab, 4 p.m. lab) We have two instructor/evaluators who are in the lab full time, and, of course, there is my own position which gives us a program total of 11 personnel.

Our objectives are to provide a means to one of four goals (and combinations): Direct placement (may include full time O.J.T.), trade school, a cooperative type set-up and, last, provide a means of transferring students we cannot serve to programs which will meet their needs.

To date, we have placed three students in trade schools (with several slated for admission in the future), four in a cooperative on-the-job training status, nine placed directly into employment and seven placed in other training situations (School for Trainable Retarded, Rehabilitation Center, etc.) We have, of course, had dropouts which we would rather not have to show. This totals approximately 14. (The above data is applicable to approximately the first 100 students taken into the program.)

(Report of Mr. Harold S. Cross, Supervising Coordinator, T. & I.)

MARSHALL COUNTY—HIGH POINT

Objective of Program

The main objective is to train and prepare students for employment:

(1) Placed directly on a job when student has reached a degree of employability.

(2) Placed on-the-job training—trial basis.

(3) Transferred to the area vocational school for further training if student can profit from additional training.

Program Participants

The students enrolled in this program have dropped behind in their regular classes and are potential dropouts due to their inability to perform with other students their age.

Students in program are educable mentally handicapped with an I.Q. range from 55 to 80 at the elementary and junior high school levels.

Approximately 250 students have been identified; most students are from lower socio-economic environments.

Occupational Training

Instruction is directed toward semi-skilled levels of training such as: (1) Plumber's helper; (2) Mechanics' assistant; (3) Groundskeeper; (4) Other.

The occupational field for boys includes the following areas:

(1) Basic Trades:

- (*a*) Mechanics
- (*b*) Metalworking
- (*c*) Woodworking
- (*d*) Electricity
- (*e*) Welding
- (*f*) Plumbing
- (*g*) Masonry
- (*h*) Painting

(2) Horticulture:

Two instructors are employed with approximately 10 students each.

The unit for girls, with one instructor, includes basic homemaking, sewing, and homemaking occupations.

Emphasis is placed on areas such as food handling (waitress training, operation of commercial kitchen equipment), commercial sewing and child care.

Related instructions are provided to all students by job instructor as needed in areas of math, science, English and other areas necessary or directly related to vocational objectives.

Facilities and Equipment

An existing vacant school has been converted into a functional facility.

Equipment is adequate for the training programs in operation. Additional equipment will be needed with other occupational areas. Example: Service Station Attendant

A small greenhouse is needed for work experiences in ornamental horticulture.

Program Needs

(1) Skills taught and instruction provided must be on the level of students enrolled; the dropout rate in program has been relatively high.

(2) Instructors need special training in working with handicapped students.

(3) Special instructional materials need to be developed for handicapped program of this type.

ETOWAH COUNTY—HOKES BLUFF

Object of Program

The primary objective of program is to retain dropout-prone students in the instructional program and to enable students to explore the world of work acquiring basic skills and understandings essential to civic and social responsibility.

Program Participants

One hundred twelve educationally and/or socio-economically disadvantaged students have been identified and enrolled in the program.

Students are enrolled in grades 7 through 12, including both boys and girls.

Instruction and Training Provided

(1) Introduction to the World of Work—An exploratory course of occupations including opportunities and skill requirements in the world of work. Simple hand shop tools and elementary basic skills are studied and practiced.

(2) Exploring the World of Work—an exploratory course of the work opportunities in agribusiness and industry. Students receive elementary laboratory experience in the many areas of the world of work.

(3) Advanced career planning

(4) Business Practices, communications, etc.—Girls

(5) Mathematics as related to occupations—Grades 9–12.

Facilities and Equipment

Vocational Agribusiness shop has been utilized by students for shop skills.

In process of developing a small laboratory in addition to agribusiness shop for work experiences. Vo-ag greenhouse has provided experience in ornamental horticulture.

Equipment, supplies and instructional material have been inadequate for program.

Other Limitations of Program

(1) Funding for equipment, supplies, instructional materials, teachers' travel.

(2) Class sizes are too large for facilities and need for individual instruction.

(3) Work experiences for students in areas requiring manipulative skills.

(4) Identification of specific jobs that students can be trained for in advanced classes after completing exploratory courses: students may enroll in regular vo-ag program or area vocational school.

Observations

Administration would like for program to continue and be developed to better meet the needs of students served.

Teacher is very creative; needs special training in skilled or craft areas (shop) and additional instructional materials.

Lee County—Opelika, Alabama, Southside High School—Basic Mechanics Course

A course in Basic Mechanics was established for 36 male students in grades 9–12 who were failing in academic subjects and were identified as potential dropouts. Students were selected who could profit from the course and who showed an interest in and intent of entering the mechanics occupation.

Basic Power Mechanics was selected because there are so many levels of employment in this field. Graduates find employment on different levels, according to ability and the degree of skills acquired. There are many levels of skills involved in Power Mechanics and all students can acquire salable skills on one of these levels.

Since this is a basic course, students have an opportunity to explore the field, discover their interests and determine whether to enter the field at entry level of employment upon graduation or take post-high school training.

This is the first year of a two-year course. However, the Superintendent and Teacher have made the following observations up to this point:

1. The percentage of students with failing grades have decreased tremendously from last year. Last year 36 percent of these students had failing grades. This year less than 10 percent of the students are failing. This change is not due to a lowering of academic standards, but the results seems to be due to changing the approach and placing emphasis along student's needs and interests.
2. The dropout rate is much lower and indications are that many will complete high school who would not have remained in school without the opportunity to take this course.
3. Many of the individuals enrolled in the program have achieved success who would have found it impossible to succeed in an academically-oriented program.
4. Two sections of three hours length are taught each day by the teacher. There are 18 students in each section. With the smaller classes the teacher can give more individual time and attention to each student. Much of the instruction is "laboratory experiences" where the students are allowed to practice each step of an operation under the guidance of the teacher.
5. The school administrators are well pleased with this course and expressed a need for additional courses of a similar nature.

A BRIEF DESCRIPTION OF VOCATIONAL TRAINING FOR DEAF AND BLIND STUDENTS IN ALABAMA

There is at Talladega, Alabama, a Special Technical Facility consisting of a special trade school and a comprehensive rehabilitation center. This comprehensive program has been developed cooperatively by Vocational Education, Vocational Rehabilitation and the Department of Adult Blind and Deaf to serve deaf and blind students from the State of Alabama. The trade school accepts both post-secondary and area students. The post-secondary students come from throughout the state. The area students come from the residential schools for the blind and deaf located at Talladega. The major objective of the trade school is the same as other trade schools. That is to develop the necessary skills for blind and deaf students to become successfully employed. The major difference between this school and other trade schools is primarily in the techniques employed in providing trades' training.

Captioned visual aids, sign language, and finger spelling are used extensively with the deaf. The major problem with the deaf is communication. Special emphasis must be given to vocabulary and other ancillary services closely related to their vocational training.

Braille, magnetic tapes and other special techniques are employed with the blind. One of the major problems with the blind is coping with space.

The comprehensive plan for the vocational education of handicapped persons included on pages 45 and 46 of the Alabama State Plan for Administering of Vocational Education is followed in planning and pursuing a program of services to fruition. Vocational and other ancillary services such as fitting and use of hearing aids, hearing and speech therapy for the deaf, and peritpatology (orientation and cane travel) for the blind are carefully planned and coordinated.

The training curriculum adopted by Vocational Education is modified as needed for deaf and blind students. Considerable effort is devoted to related studies as frequently blind and deaf students are in need of these services. Adult Basic Education is available for school drop-outs and those in need of academic training to pursue skilled training leading to employment in automative industry.

Business and Office Education for the Handicapped Student

ALABAMA INSTITUTE FOR DEAF AND BLIND, TALLADEGA, ALA.

Mrs. Clarice R. Sawyer—Instructor

The length of the school day in the Talladega program is approximately seven hours, which includes normal break time and lunch. The students come from several southeastern states including the State of Alabama. The majority of these students are high school graduates.

Some of the health impairments found in these students are: mental retardation, hearing defects, deafness, blindness and legal blindness, and emotional instability.

The curriculum in the Business and Office Education Department includes a program in clerk-typing, machine transcription, medical transcription, general office clerical, stenography, and bookkeeping.

Length of Courses:

1. Clerk-typing—12 months;
2. Medical Transcription—12 to 18 months;
3. General Office Clerical—12 to 18 months;
4. Bookkeeping—12 months;
5. Stenography—18 months.

Each student may vary as far as the length of time in completion of any particular course, depending on his background and aptitude.

The present enrollment totals 11 students with a total of 25 for the school year.

A three-year follow-up program is in the process of being completed and from the information that has been gathered at this time, the program appears to have been very successful. Former students are working in a wide range of office occupations. They have secured jobs in banks, hospitals, libraries, private businesses, etc. Some former students are now attending senior colleges.

In my opinion, the funds that have been expended on these students have been a worthwhile investment and will pay dividends to our society well into the future.

JEFFERSON COUNTY—BOYS INDUSTRIAL SCHOOL, AUTO MECHANICS COURSE

The Boys Industrial School is a correctional institution for boys. The boys are sent to this school after having some behavioral problems in their home communities. Generally speaking, all of them are disadvantaged because of economic conditions, social adjustment, home life and academic deficiencies in reading, math, spelling, science, etc.

When the boys arrive at school, they are given tests to determine their interest, aptitude and ability. Next, they go through an indoctrination program of each vocational course offered at the school. This indoctrination program covers a period of seven or eight days and is given by the instructors in their laboratories or shops to acquaint the students with the course content and other information needed for an individual to make an acceptable occupational choice.

The students then return to the counselor for additional information before making an occupational choice. When the choice is made, each student spends his school time with his shop or skill instructor and related-subjects teacher. The laboratory or shop instruction is based on the practical experience needed to teach an individual the required skills of auto mechanics. The vocationally-related subjects teacher covers the areas of information the student may need to be successful in the occupation.

The program has been in operation only a few months, but we have some boys who have been placed on the job and seem to be making satisfactory progress.

The school works closely with the Welfare Department in keeping in touch with the student after he returns to his home or community.

Although the program has been in operation a short time, in my opinion this type of vocational training is a step in the right direction in improving the status of our disadvantaged youth. There are other vocational courses similar to the one described here that are meeting the needs of our young people at the school.

SEARCY STATE MENTAL HOSPITAL, OCCUPATIONAL HOME ECONOMICS COURSE

The Home Economics Program at Searcy State Mental Hospital opened its doors to the first students/clients in July, 1970. The Home Economics Department is located in the Rehabilitation Facility. This is a new building and all the equipment (and we have a very complete equipment inventory) is new and excellent. This was provided by the Vocational Rehabilitation Service. Money was also available from Vocational Education to purchase books, audio-visual equipment, and other needs for student/client use.

The curriculum was adapted to meet the needs of the patient preparing for life outside the hospital, both by learning to take care of himself and by learning skills required for getting and keeping a job. It was felt that after spending time in a mental hospital, most people need help before returning to an ever-changing society.

The students/clients are both male and femals and range in age from 14 years to 55 years. They vary in their educational background from the illiterate to the college-educated. The length of time they have been in a mental hospital varies from 23 years to one month; therefore, their touch with the "outside" world also differs greatly. The course content attempts to provide training in the following areas: food service worker, seamstress, home companion (housekeeper), and waiter. Also included are personal grooming, home nursing, health and safety and family living.

The length of each student/client's program is determined by his personal needs: how long he has been away from a job, how well he progresses in the program, his mental abilities, past experiences, etc. The average number enrolled at any one time is approximately 25. This varies from month to month, sometimes greatly.

Some students/clients move on to the aftercare programs set up by Vocational Rehabilitation for patients who leave the hospital under the auspices of this service. Others go on to the Personal Adjustment Center in Mobile where their training is continued. Others drop out for various reasons—they become mentally unstable, return home, or it is decided that this program is not suitable for them. Since students/clients are turned over to other Rehabilitation counselors upon leaving the hospital, an employment record would be impossible. However, we strive to prepare a person to return to society, to hold a job, and to be a homemaker.

E. L. Darden Rehabilitation Center, Occupational Home Economics

The Occupational Home Economics program has been in operation since November 10, 1970. It was felt that a person with home economics training could serve a great need at the Center for the purpose of working with handicapped individuals. Prior to the above date, the Center did not have sufficient staff to work with clients in the homemaking and adult daily living areas. It was difficult to work with handicapped individuals because of a lack of equipment and personnel trained for this purpose.

The main objective of the Center and the Occupational class is employment for the client. Everything is designed to reach toward this goal. Each client is given indvidual instruction, and programs are set up to meet his or her specific needs. The areas covered by the Occupational Home Economics class are as follows: child care and guidance, clothing production and alterations, food production and services, floral design, personal grooming that contributes to job success, job readiness, and crafts (to improve hand skills and coordination).

There is no set limit of time for each area of study included in the occupational course, since the course is designed to meet the needs of each individual student/client and the length of time that client will be in the Center. Counselors refer these clients to the Center for work and for personal adjustment services. Most people are enrolled for two or three months, but in some cases the client may stay as long as a year, depending on his particular needs.

Twenty-three student/clients were served by the Occupational Home Economics class from November 1969 to June 1970. Each of these people stayed in the program until the staff felt the client's needs had been met.

A follow-up report was made at the end of the year, and the findings were as follows: 9 people were continuing their education at a higher level; 5 had been employed on full time jobs; 8 were known to be unemployed; and the status of 1 was unknown.

The space for the Occupational Home Economics program has been provided by Rehabilitaiton. All equipment and supplies available for use have been purchased through funds supplied by Vocational Education. Basic equipment for a kitchen, dining room, laundry area, living room, bedroom, and children care unit has been purchased. All equipment is in use at the present time, but there is still a great need for more additional space and equipment to meet the needs of the handicapped enrolled in this training program.

FAYETTE COUNTY HIGH SCHOOL, OCCUPATIONAL HOME ECONOMICS COURSE FOR STUDENTS WITH SPECIAL NEEDS

The Occupational Home Economics Course in Clothing Production and Management at Fayette County High School has been in operation for two semesters. The program began January 19, 1970.

Through surveys conducted by Fayette County Vocational Director, Robert Lee Harwell, it was determined that there was great need for a vocational course of this nature in the Fayette area. Since 1950, fifteen apparel manufacturing plants have been built in the Fayette County area. These plants estimate that they will need approximately 1,000 new workers each year. Mr. Harwell also determined that only about one-third of the girls graduating from Fayette County high schools are attending college. It is this group of girls that the program is designed to help.

The objectives of the course are to:

1. Assist disadvantaged girls, and any others who are interested, in choosing, preparing for, and entering a chosen occupation.
2. Improve students' abilities to read, write, and comprehend.
3. Assist those who might be potential dropouts in preparing themselves for gainful employment.
4. Make trained workers available to the apparel industry.
5. Keep an up-to-date employment opportunities file and record of available students.
6. Emphasize cleanliness and attractiveness in personal appearance.

The content of the course includes:

1. Training in the operation and maintenance of various kinds of industrial sewing machines.

2. Training in basic skills required of all machine operators in apparel industries.
3. Training in construction of specific parts of garments and, in some cases, the construction of entire garments.
4. Instruction in those traits and personal characteristics that contribute to job success in the apparel industry.
5. Orientation to the world of work.
6. Attempts to improve reading and communications skills through extensive use of reading materials, reporting, and writing exercises.

The two-year course is offered to girls in the eleventh and twelfth years of school.

In 1970, there were 31 girls enrolled in the course. Of these, five of the girls were students at Berry High School, located 18 miles from Fayette, and the others were students at Fayette County High School.

In 1970–71, there are 30 girls enrolled in the course. All of these students are from the high school in Fayette. The two other high schools in the county did not participate because of scheduling difficulties.

Apparel industries in and around the Fayette area have been most cooperative, helpful and enthusiastic concerning the program in clothing production. The Fayette Manufacturing Company has supplied nine industrial sewing machines, all the thread, fabric, needles, bobbins and cases, oil and mechanical help that has been needed. All that has been necessary for the teacher to do is to ask and equipment and supplies have been furnished. This company has sent plant employees to talk with the students and to demonstrate skills and techniques and has kept its door open for frequent visits.

Lamar Manufacturing Company has provided three machines and has offered jobs to girls who complete the program.

The managers of the apparel industries say that the program can save them $500–$700 per person hired. The girls can go to work immediately and reach production within a few days and have to spend no further time in training.

Fayette Manufacturing Company will hire all girls who are recommended by the teacher. These students often begin work on a half-day basis before school ends for the summer. They work from 12 to 5 o'clock for four days and are in class on Friday. Upon graduation from high school, or upon completion of their junior year, girls begin work full time. Some work through August and then go on to college, trade school, or business school. Some work during the summer and return to high school to complete the twelfth year, having earned $600 to $1,000 during the summer months. Others stay on full time with the apparel industry.

Twenty-two of thirty-one students having one semester of Occupational Home Economics in 1970 went to work at Fayette Manufacturing Company in May and June, 1970. Six of the thirty-one attended summer school. The other three could not work for various reasons. Of the twenty-two who worked, fifteen used their summer earnings to help them to get higher educations. Most of these will return to the apparel industry to work this summer, 1971. Five of the twenty-two are still working in the apparel industry.

F. W. OLIN VOCATIONAL HIGH SCHOOL OCCUPATIONAL HOME ECONOMICS COURSES FOR STUDENTS WITH SPECIAL NEEDS

This program has been in operation since September, 1967, the first year the program was started in Alabama. We feel that there is a need for the program because it trains students for gainful employment. Since this community is a disadvantaged area, we think jobs would greatly help to supply the needs of the students.

The purpose of the course is preparation for employment in occupations involving home economics knowledge and skills. To help students to become informed on the scope of the employment possibilities; and to help them to become acquainted with the opportunities of advancements.

The course consists of the following outline for Clothing Production and Alteration:

1. Operation and care of the sewing machine.
2. Hand stitches and seams.
3. Fabric.
4. Techniques of garment construction and finishes.
5. Alteration and repair of clothing.
   (*a*) *Men*
      (1) Cuffing pants;
      (2) Shortening and Lengthening pants and coats;
      (3) Waistline adjustments;
      (4) Tapering pants;
      (5) Replacing zippers, buttons;
      (6) Tipping pockets.
   (*b*) *Women*
      (1) Hemline alternations;
      (2) Taking up and letting out seams;
      (3) Shifting darts;
      (4) Waistline alterations;
      (5) Replacing zippers.
   c. Drapery making, bedspreads, and pillows

Course outline for Food Production and Services—

1. Orientation to the food service industry.
2. Personal qualifications that contribute to job success.
3. Nutrition.
4. Safety for food service workers.
5. Hygiene, health, sanitation and housekeeping.
6. Care and operation of kitchen equipment and tools.
7. Management of time, energy and properties relating to food production.
8. Quantity food production.
9. Food cost and portion control.
10. Knowledge and skill in serving food.
11. Employment policies.
12. Trade and professional organizations related to the food service industry.
13. Getting and holding a job in the food service industry.

This course requires two years for completion. We have 79 students enrolled in Occupational Home Economics. The space is fairly adequate, but facilities are limited.

Industry feels that a large amount of money is being saved through this training program.

III. POST-SECONDARY EDUCATION

There are 26 Technical Institutes in Alabama which were built to prepare people in trade, health, business, and technical jobs and, therefore, upgrade the economy of Alabama. One additional institute is located at Draper Prison.

As of January 8, 1971, there were 8,221 students in these institutions.

New industry is being attracted to this State because persons can be trained in these institutions to meet industry's labor needs.

Equipment and facilities are available to guarantee to industry that Alabama can train the people to work in their plants. This can be done without additional cost to industry.

The age distribution of enrollees in the Technical Institutes runs about 80 percent in their early 20's. About 80 percent are high school graduates.

The regular day program is doing a fine job of turning out craftsmen and technicians. These schools are also teaching shorter courses at night and, thereby, are turning out operators and single skilled personnel in most of the trade occupations to meet the immediate needs of industry and of people who want and need further training.

ALASKA

State Director—Louis D. Ridle

STATE OF ALASKA,
DEPARTMENT OF EDUCATION,
Juneau, Alaska, June 23, 1971.

Hon. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education, House of Representatives, Congress of the United States, Rayburn House Office Building, Washington, D.C.

DEAR CONGRESSMAN PUCINSKI: This correspondence is in reference to your letter of May 19 requesting information on the effect of the Vocational Education Amendments of 1968. We are pleased to be able to assist in the matter, and we sincerely hope you find the following information to be of use.

Your first request was for information on the effects of Federal funding on our research activities. Although the available funds have been minimal ($10,000 to $15,000), the results have been tremendous. Phenomenologically speaking, this money has served as the trigger for a whole new direction in decision making and planning. Whereas before our planning decisions were made on the basis of initiative kinds of predictive judgments, we now have an economic (with reference to occupations) and demographic ten-year model that is self-correcting. Whereas before we made "estimates" of enrollments with no follow-up of graduates, we now have a student-based reporting system designed for data processing. Whereas before we had no means of determining relative program effectiveness, we have now initiated an activity designed to create the system to produce this sort of information. The usefulness and importance of the research money cannot be overstated.

The second area your letter mentioned was that of post-secondary education. Alaska is in an unfortunate situation in that the community colleges are a "stepchild" operation in that they must compete for funds under *two* parent organizations that have other operations to consider. Under our apportionment for fiscal year 1970, we had $17,000 available in Federal funds towards the support of all non-degree or vocational programs in our post-secondary institutions. Even with a sizable addition of State money, we find a continuing impoverishment in post-secondary activities that has remained constant over the years.

The third category in which you expressed interest was in relation to the handicapped and the disadvantaged student. Because of some peculiarities in the Federal definition of disadvantaged, nearly every Alaska citizen falls in this category. From an internal and relative viewpoint, we consider our smaller communities and rural schools as being *most* qualified to receive Federal funds designed to assist the "disadvantaged." Because of the 1968 Amendments, there are vocational programs in 13 communities where this educational alternative did not exist. The worth of this sort of development goes without saying, but we will not be satisfied until we see the development of comprehensive regional career centers for both adults and juveniles with a residential capacity for families. In relation to the handicapped, Federal vocational money has been the sole or major reason for the initiation of secondary programs for the handicapped in two communities (soon to expand to four) and a significant contribution to impoverished programs in two other communities. We find it particularly gratifying to be able to accomplish so much on so little money. Another point of consideration in your request concerned the manner of intra-State distribution of funds. Prior to the 1968 Amendments, funds were distributed as personal gratuities in a manner that had a definite existential quality in terms of personal relationships. Now, however, a basic division of funds is made on student VADM with additional consideration given to program compatibility with national goals, prior to performance, and community-State impact. Post-secondary funds are divided in an open meeting by the community college directors. As you can well imagine, there are some interesting meetings.

Sincerely,

Louis D. Ridle,
Director, Vocational and Adult Education.

ARIZONA

State Director—J. R. Cullison

ARIZONA DEPARTMENT OF EDUCATION,
DIVISION OF VOCATIONAL EDUCATION,
Phoenix, Ariz., July 8, 1971.

Hon. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education, Rayburn House Office Building, Washington, D.C.

DEAR MR. PUCINSKI: In response to your letter dated May 19, 1971 requesting information reflecting the progress made in Vocational Education in Arizona since the Vocational Education Amendment of 1968, I am enclosing a copy of "Learning A Living" which graphically and completely details such progress.

Respectfully,

J. R. CULLISON,
Associate Superintendent for Vocational Education.

Enclosure.

LEARNING A LIVING—CAREER EDUCATION IN ARIZONA

A REPORT FOR THE STATE DEPARTMENT OF VOCATIONAL EDUCATION, J. R. CULLISON, DIRECTOR

(By Arthur M. Lee, Director, Research Coordinating Unit)

CHAPTER VII—THE BALANCE SHEET

The hard fact remains that schools have increased more in quantity than in the quality of their adaptation to changing social and economic conditions. A "sound basic education" for a technological age has not been (and is not) "always available and available for all" students in many school systems. Current social conditions, current attitudes of youth, and current shortages of skilled manpower required for economic growth prove this point.

—What is the Responsibility of Business in Modernizing Education? Chamber of Commerce of the United States, 1969.

Is a sound basic education for a technological age always available and available for all students in Arizona? The idea itself may be in a class with eliminating poverty or establishing universal health insurance, but it is no more to be questioned as an educational goal that teaching everyone to read. How well are the schools in this state doing in providing career education for everyone, including the 70% or 80% who will seek employment without the benefit of four years of college? How well is the state as a whole doing in providing skill training for those who need it at any age? Where are the strengths and where are the weaknesses in Arizona's vocational and manpower programs? What seems to be needed to improve the efforts already being made?

Some of the answers to these questions are suggested in the preceding chapters. The answers themselves, of course, are subjective and not everyone will agree that even the questions are the right ones to ask. Recognizing the right to disagree, it is still a responsibility of research to analyze the results and draw conclusions. It is also worthwhile and often invaluable to get the conclusions of others, both those who are directly involved in the programs being studied and critical observers of these programs. The analyses and the conclusions presented here, therefore, are drawn from three sources: the research itself; a descriptive report of what has been done in the past year by the State Department of Vocational Education: and the State Advisory Council's first Annual Report evaluating the State Department's efforts.

SUMMARY OF CAREER EDUCATION IN THE SCHOOLS

The amount, location and kinds of skill training offered to students in Arizona are easily identified under the definitions of vocational-technical education administered by the State Department of Vocational Education. These are summarized in Tables 15 and 17 in Chapters II and Table 34 in Chapter III. Nearly 40,000 students in the secondary schools, 10,000 in post secondary programs, and 24,000 adults were enrolled during the past year. One hundred fifty-five different occupational programs were offered in 459 institutions throughout the state. In the secondary schools this represented slightly more than 30% of the entire enrollment, which compares favorably with a national average of 25.4%. Table 69 shows the vocational enrollment compared with total enrollment in each county. Significantly, Graham, Maricopa, Navajo, Pinal, and Yuma counties exceeded the statewide percentages of students taking vocational courses, with Pinal reaching just under 50%.

TABLE 69.—SECONDARY VOCATIONAL EDUCATION ENROLLMENT IN ARIZONA COMPARED WITH TOTAL ENROLLMENT BY COUNTY AND STATE, 1969–70

County	Total secondary enrollment	Total secondary vocational education enrollment	Percent of vocational education enrollment
Apache	2, 401	555	23. 1
Cochise	5, 167	2, 063	30. 9
Coconino	3, 649	759	20. 8
Gila	2, 143	591	27. 6
Graham	1, 486	531	38. 3
Greenlee	1, 069	229	21. 4
Maricopa	70, 026	23, 065	32. 9
Mohave	1, 816	689	37. 9
Navajo	3, 286	1, 107	33. 7
Pima	25, 514	5, 062	19. 8
Pinal	5, 273	2, 625	49. 8
Santa Cruz	1, 167	172	14. 7
Yavapai	2, 831	679	24. 0
Yuma	4, 714	1, 492	31. 7
State total	130, 442	39, 621	30. 4

Note: Data supplied by State department of public instruction, and RCU Data Systems Division.

These figures include home economics useful students, but do not include industrial arts or general business for which reliable enrollment data are not available. Many students use the skills they acquire in industrial arts and general business classes to seek employment and pursue their careers after they leave school. Estimates of the total number of students enrolled in some kinds of a skill course during four years of high school in Arizona go as high as 80%.

In the State Department's descriptive report for 1969–70, the following accomplishments are listed:

Secondary Programs.—In addition to the enrollment and program gains noted earlier, attention is directed to particularly significant results in a number of individual programs. Cooperative education has been extended to classes in home economics; and inter-disciplinary courses in hospitality education have been established in four schools involving English, mathematics, guidance and cafeteria personnel. A cooperative program in distributive education for potential dropouts was developed at Phoenix Union High School, and additional innovative programs in distributive education were established in Holbrook, Yuma, Tucson and Phoenix. Secretarial programs in Globe and Camp Verde were made bi-lingual; two new cooperative programs in office education serving chiefly disadvantaged students were established in the Phoenix inner-city area, one at South Mountain and one at Phoenix Union; and a low achievers block program was continued at Sunnyslope High School in the Glendale District resulting in a decision to expand to another grade level.

Vocational agriculture has developed model programs of three kinds throughout the state: urban, represented by Westwood High School in Mesa; rural, usually irrigated, represented by Wilcox; and rural-Indian, represented by Monument Valley High School in Kayenta on the Navajo Reservation.

Post Secondary Programs.—Vocational enrollments projected for the year at 18.8% of total community college enrollments actually reached 26.3% and are expected to reach 38% by 1975. The number of instructional programs, percentage of students placed in jobs, and the number of programs developed for new and emerging occupations all equalled or exceeded the State Plan for 1969–70.

Arrangements were made with four private cosmetology schools in Tucson to train students from Tucson District No. 1 under contract with public agencies as authorized in the Vocational Education Amendments of 1968, and thirteen students entered the program. This represents a cooperative effort involving the high schools, the State Department of Vocational Education, and the private schools.

An agricultural equipment technology program was initiated at Arizona Western College built on agriculture, trade and industrial, and technical instructional programs. A building materials-marketing management program was developed at Phoenix College in cooperation with the Arizona Building and Lumber Association. Additional new programs at Phoenix College include fashion merchandising, electromechanical technology and chemical technology. A manufacturing processes technology program was initiated at Mesa Community College.

Consumer and Homemaking.—Two hundred fifty-four programs were conducted in ninety-nine schools related to consumer and homemaking. Five of these were full semester courses devoted totally to consumer education, and eighty-five were comprehensive home economics courses which included consumer education. Ninety-two homemaking classes for adults were offered, eighty-five in urban areas and seven in rural communities. Twenty-seven special programs were developed for students in depressed areas with cultural, social and economic handicaps, fourteen for adults, eleven for youth, and two for adults and youth together. In addition to these special programs, twenty-six more were conducted for youth in other depressed area schools on a formula funding basis for consumer and homemaking. One teacher's aide course was offered to train assistants in reaching extremely disadvantaged persons with consumer and homemaking education, and fifteen students completed the course.

Vocational Guidance and Counseling.—One hundred three of the 112 senior high schools in Arizona, three of the seven elementary schools teaching high school subjects, and all of the junior high schools have organized guidance programs operated by certified counselors. An occupational and education information service for the use of students and counselors in an integral part of every guidance program in the state. However, much of the commercialized and free vocational information purchased or given to the schools is too inaccurate, or is biased. Most school counselors lack reliable information, experience, and even incentive in vocational counseling. Efforts to improve this situation during the past three years included completion of a released time project for fifteen counselors in the Phoenix Union High School District to spend one academic year each visiting and interviewing businesses and industry personnel; a series of manpower information and counseling clinics at strategic locations throughout the state bringing school counselors and Employment Service specialists together; seven school administrators and eighty-five elementary, junior and senior high school and community college counselors enrolled in a summer workshop on occupational information and career development psychology; and twenty-three Employment Service counselors with graduate degrees in counseling and guidance working with disadvantaged youth and school counselors.

Special Needs Programs.—Four hundred seventy-six students in vocational programs received special in-school education. A pilot program was established with the Maricopa Accommodation School for twenty-nine trainees. A one week workshop was held for seventy-five teachers of handicapped students on problems of educating the mentally retarded and designing vocational programs. Fifty-one students in the Maricopa County Detention Home were given auto service station training, and 134 youth received vocational training in eleven programs at the Ft. Grant Boy's Industrial School. Three hundred fifty-five disadvantaged youth and potential dropouts in Tucson were given a summer program in job orientation, attitudinal adjustment and vocational guidance. Vocational programs for potential dropouts and disadvantaged youth were equipped for next year at Nogales, Holbrook, Indian Oasis, and Coolidge. Five hundred ninety-three persons, largely disadvantaged, were trained in needletrades in rural communities, of whom 542 were employed. The multi-agency prison program in vocational training and rehabilitation was expanded.

Vocational Youth Organizations.—A three-day leadership training conference was conducted for 450 members of FFA (Future Farmers of America). State FFA officers made 191 public appearances; seventeen members participated in a thirty minute color television program; four members appeared on a national television program; and an Arizona member received the Star Agricultural Businessman of America award at the national FFA convention.

A three-day leadership training service was held by the FHA (Future Homemakers of America). District meetings were held at five high schools throughout the state. A state meeting focused attention on drug abuse and career workshops, with twenty-five representatives from business, industry and education participating. An Arizona member was elected national FHA treasurer.

Two hundred members of VICA (Vocational Industrial Clubs of America) attended the State Association spring conference where competition activities were increased from seven to fifteen. Six student contestants and two delegates attended the national VICA leadership conference. A permanent advisory committee of six members was formed and met three times during the year. Fifty-five members participated in a leadership workshop for local club officers, and the number of state offices was increased from five to six.

Five regional meetings were conducted by DECA (Distributive Education Clubs of America), attended by over 600 students and chapter advisors throughout the state. Fifty-eight members of the Arizona DECA Speakers Bureau spoke to audiences totaling more than 10,000 people, and this program is being duplicated on a national scale. Eight hundred ninety-six persons took part in the DECA state leadership council, including 124 businessmen working with the students. Thirty-eight Arizona members attended the national DECA leadership conference, and two of them received National Scholarship Loan awards. The state chapter awarded five scholarships. The first annual DECA Western Regional Leadership Conference was held in Arizona attended by over 100 students from eight states.

Additional preparatory efforts were carried out during the year to organize Arizona Chapters of OEA (Office Education Association) and FBLA (Future Business Leaders of America). A planning meeting has been scheduled for the organization of an OEA chapter following a survey of 18,000 students and teachers.

Cooperative Vocational Education Programs.—Fourteen new secondary and four new post-secondary programs were started, making a total of ninety-nine programs with an enrollment of 2,431 student trainees. Over half of the new programs were located in areas showing high youth unemployment and school dropouts. Two multi-occupational extension courses were conducted for thirty vocational teachers, one by ASU and the other by the U. of A. A one-week workshop attended by fifty people was held at ASU for new Co-op Coordinators and a selected group of administrators. Subject matter fields included co-op programs, office education, cost accounting and cost efficiency, vocational agriculture, pre-vocational education, engineering technology, and industrial education.

Research.—Nine new projects were funded during the year and sixteen altogether were completed. Subject matter fields included co-op programs, office education, cost accounting and cost efficiency, vocational agriculture, pre-vocational education, engineering technology, and industrial education. Vocational research library holdings have increased to 41,718. Eight thousand materials were cross-indexed, coded, and key punched into a computer search and retrieval system. bringing the total available for automatic search to 10,884. One hundred twenty computer-assisted search and retrievals of vocational research materials were made in ERIC and the RCU library. Twenty-three professional reviews were made of current research by specialists in the state and distributed in six issues of the RCU Newsletter to a mailing list of 2,296 educators and administrators. Three statewide research conferences were held, one for the Department of Vocational Education staff personnel, one for vocational teacher educators, and one for junior college presidents and occupational deans. Individual student enrollments were processed for 39,065 students in secondary, post-secondary and adult vocational education; and class enrollments were processed for 49,878 students in home economics useful and adult education. Six thousand five hundred twenty-five former students were followed up and data from 4,044 received and processed. Equipment data from 100 schools totaling 31,000 items were inventoried and prepared for computer storage and updating. The major requirements for a cost accounting/cost effectiveness data system were developed, and the basic requirements for a career counseling data system were explored.

Exemplary Programs.—Four proposals were developed and approved for funding which will involve twelve institutions and thirty-five programs designed to create a bridge between school and earning a living. These include co-op vocational education classes, integrating vocational and academic classes, screening processes, guidance services, teacher training, curriculum development, and pre-vocational preparation involving more than 300 students who are still in school or have just left school. Approximately twenty students will be in non-profit private schools and the BIA Indian School at Many Farms. Nine programs in the hospitality area in nine northern Arizona schools will be established for the purpose of familiarizing students with the world of work.

Work Study Programs.—Twenty-one programs were developed and approved for funding involving forty schools and 130 students. Thirty-four of the schools are secondary and six post-secondary. Eighteen of them are rural and twenty-two urban.

SUMMARY OF CAREER EDUCATION AND MANPOWER TRAINING

There are various ways of looking at the total picture of skill training in the state. Actual numbers of persons being trained during the past year are shown for each county by kind of program and occupational service in Table 70. State totals are shown in Table 71 with percentages by occupational service and by kind of program. Trade and industry accounts for 29.4% of all the training in the state followed by office occupations 18.6%, distributive education 15.2%, and technical 12.2%. Agriculture, health, and home economics gainful ranged from 3% to 5%. Tables 70, 71, 72, 73, and 74 do not include home economics useful enrollments in vocational education. They were included in Table 70 because they represent a recognized area of career preparation in the schools, that of homemaker. They are not included in the other tables because these are limited to skill training for employment.

In terms of administrative responsibility, the State Department of Vocational Education accounts for two-third of all of the training in the state—66.9% including secondary 17.8%, post-secondary 11.3%, special needs 4.2%, adult 29.5% and MDTA 4.4%. Private schools train 13.2% of the total, and 12.6% are trained in special federally supported programs for the disadvantaged. Bureau of Indian Affairs programs provide 4.6% of the state's skill training, and apprenticeship programs 2.7%.

The maps in Tables 72 and 74 show the distribution of training by program and by occupational service. Secondary programs are offered in all fourteen counties and enrollments roughly follow the state's population distribution. Postsecondary enrollments are distributed largely according to the location of community colleges. Adult training is concentrated in metropolitan areas and to some extent according to the location of community colleges and other institutions available. The smaller programs are necessarily uneven throughout the state, but with a tendency to concentrate in Phoenix and Tucson. The distribution of training by occupational services reflects economic patterns both in local employment opportunities and in the ability of local institutions to support training programs; and although this is to be expected it raises serious questions about equality of opportunity in Arizona's rural counties.

Table 73 is a complete summary by county and state of all training in each occupation. Also shown on this table are the current employment estimates for each occupation and the projected need for additional employees during the next five years in each occupation. It is immediately apparent that wide discrepancies exist between numbers being trained and projected employment needs in many occupations. Apparel and accessories under distributive education, for example, shows a projected five year need of 22,000 and only 485 being trained. Management and mid-management combined, on the other hand, show a projected need of 950 and 4,637 being trained. Similarly, there is a projected need of 2,200 nurse's aides and only 181 being trained while in production agriculture the projected need is 400 and 1,154 are being trained.

The trouble may be in the reliability of employment need projections rather than in overtraining and undertraining, especially when such projections are made from a census baseline of ten years ago. The validity of any comparison of training effort and employment market requirements may also be questioned in a majority of the occupations because of disagreements over definitions. Considerable progress has been made in bringing educators and labor economists together on occupational definitions, but serious discrepancies still exist. Perhaps the best example of this is the vigorous disagreement between vocational agriculture teachers and the Employment Service over what is meant by production agriculture.

As skill training becomes increasingly multi-occupational, through job cluster programs and career combinations (i.e. agri-business, medical electronics), it is doubtful if simple comparisons of this kind can be made at all on a fixed matching basis of trainee to job. The techniques of relating skill training to the employment market undoubtedly will have to become more flexible and sophisticated, matching for example combinations of trainees to combinations of employment market needs. Table 73 should probably be viewed with this concept in mind. Thus a projected surplus of 200 agricultural mechanics might be grouped with the need for 1,300 automobile mechanics; and at the same time a combined enrollment of 2,353 trainees in these two programs should be recognized that a certain number of them will go into business, management, and other mechanically oriented careers. The automotive and petroleum field alone in distributive education shows a projected need in Table 73 of 1,350 and only 94 being trained.

TABLE 70.—SUMMARY OF CAREER EDUCATION AND MANPOWER TRAINING PUBLIC AND PRIVATE IN ARIZONA BY SERVICE, JULY 1, 1969 TO JUNE 30, 1970—NONDUPLICATED ENROLLMENT TOTALS

County and program	Agriculture	Dist. ed.	Health	Home economics (gainful only)	Office	Technical	Trade and ind.	Unidentified occupations	Total
Apache:									
Secondary					84		20	1	105
Post secondary							1		1
Adult	63				80		76	1	320
Special needs	22				66		339	633	1,060
MDTA	17	22		200	296	92	460	151	1,238
BIA									
Special disadvantaged									
Apprenticeship									
Private schools									
Cochise:									
Secondary	337	148		49	299		246		1,079
Post secondary		72	59		223	150	69		573
Adult	33	2			46	60	72	1	214
Special needs	2	7	11	16	10		94		140
MDTA	27				22		5		54
BIA					1			2	3
Special disadvantaged							50		50
Apprenticeship							36		36
Private schools									
Coconino:									
Secondary		68	26		184		100		378
Post secondary		979		22	69			1	1,071
Adult		2			69		8		79
Special needs					25		1		26
MDTA					54		61		115
BIA									
Special disadvantaged							15		15
Apprenticeship							45		68
Private schools						23			
Gila:									
Secondary		54			70		109		233
Post secondary							44	1	34
Adult									
Special needs							33		33
MDTA	3						10		13
BIA							2		2
Special disadvantaged							126		126
Apprenticeship							23		23
Private schools									

TABLE 70.—SUMMARY OF CAREER EDUCATION AND MANPOWER TRAINING PUBLIC AND PRIVATE IN ARIZONA BY SERVICE, JULY 1, 1969 TO JUNE 30, 1970—NONDUPLICATED ENROLLMENT TOTALS—Continued

County and program	Agriculture	Dist. ed.	Health	Home economics (gainful only)	Office	Technical	Trade and ind.	Unidentified occupations	Total
Gramham:									
Secondary	48	100			12		45		205
Post secondary		50			65	261	1		377
Adult	14	4			12	51			140
Special needs	63	16		3	29		137	59	248
MDTA									
BIA							38		38
Special disadvantaged							2		2
Apprenticeship									
Private schools									
Greenlee:									
Secondary	86								86
Post secondary									
Adult									
Special needs									
MDTA									
BIA							11		11
Special disadvantaged					1		2		3
Apprenticeship							30		30
Private schools									
Maricopa:									
Secondary	1,064	1,165	41	61	3,607		1,509	9	7,456
Post secondary	221	519	833	212	1,583	2,168	1,202		6,738
Adult	34	4,069	330	189	2,425	3,411	5,842	8	16,308
Special needs	4	191	35	222	206		304	8	970
MDTA	23	93	132		273	106	684	561	1,872
BIA	31	42	170	63	420	46	807		1,579
Special disadvantaged	40	40	366	347	342	100	542	288	2,065
Apprenticeship							1,702		1,702
Private schools		1,200	1,041		650	1,779	3,636		8,306
Mohave:									
Secondary		21			144		31		196
Post secondary									
Adult								1	1
Special needs									
MDTA									
BIA									
Special disadvantaged									
Apprenticeship							5		5
Private schools									

TABLE 71.—SUMMARY OF STATEWIDE CAREER EDUCATION AND MANPOWER TRAINING PUBLIC AND PRIVATE IN ARIZONA SHOWING PERCENTAGES—JULY 1, 1969 TO JUNE 30, 1970

Service	Sec.	Post-sec.	Spec. needs	Adult	MDTA	BIA	Spec. disadv.	Appr.	Priv.	Total	Percent
Agri	2,600	312	288	171	102	82	65	0	0	3,620	4.4
D.E	2,611	747	322	7,236	93	82	40	0	1,200	12,331	15.2
Health	119	1,132	187	784	206	174	454	0	1,063	4,119	5.1
Home ed. (gainful)	238	266	411	236	0	418	347	0	500	2,416	3.0
Office	5,955	2,144	944	3,515	434	1,056	446	0	650	15,144	18.6
Tech	0	3,247	57	4,343	106	138	100	0	2,127	10,118	12.4
T. & I	2,916	1,376	1,223	7,638	1,199	1,622	561	2,191	5,206	23,932	29.4
Unident. Occup	21	1	11	78	1,194	151	8,252	0	0	9,708	11.9
Total	14,460	9,225	3,443	24,001	3,334	3,723	10,265	2,191	10,746	81,388	
Percentage	17.8	11.3	4.2	29.5	4.1	4.6	12.6	2.7	13.2		100

It is doubtful if, under these circumstances, educators can yet do very much in coordinating training with the employment market except in a general way. They can continue to expand in occupations and occupational areas where increasing future demand is almost a certainty, as for example electronics and the service industries. Beyond that, attemps to regulate enrollments in a large number of training programs according to projected estimates of manpower needs will perhaps have greater validity when the number of persons being trained is nearer the total needed. In the meantime, research in the state of the art of employment projections may produce better techniques as well as better information.

The Arizona Advisory Council for Vocational Education, in its first annual report, expresses strong dissatisfaction with the employment projections presently available while pointing out that neither the State Department of Vocational Education nor the State Employment Service were to be criticized for this problem. The Council's report refers to the discrepancies between enrollments in many training programs and projected occupational needs as indicating "the crudity of the available data and estimating techniques, the unreliability of the projections as a guide to preparing training slots, and the need for program flexibility to meet rapidly changing needs."

One of the main concerns of the Advisory Council is a universe of need for vocational education programs. This, of course, is directly related to the employment market and gives added emphasis to the problem of making reliable projections of future needs. The Council's report recognizes that political as well as educational policies are involved in determining target populations, priorities, and the use of resources and suggests that the Governor's office is the place where this should be done.

Another concern of the State Advisory Council is the complicated structure of administration and financial support through which vocational and skill training programs are provided. This is evident in the preceding chapters of the present report also, and it is true not only of Arizona but throughout the nation. Educators and public officials are keenly aware of the possible inefficiencies and duplications of effort and resources involved in such situations, but to what extent the total effort may be impaired in this way is not known. As the Council's report points out, if inefficiencies do exist they are impossible to measure.

The problem of skill training in outlying communities for job opportunities largely in Phoenix and Tucson is one the Advisory Council feels should be dealt with, and two solutions are proposed. One is to increase industrial growth and diversification throughout the state, and the other is "the development of more residential or other centralized multi-school-district school opportunities for students to receive desired training not economically feasible in their home communities." A third possibility is mentioned, to add high school level vocational training in some of the junior colleges which is already being tried with some success. A fourth possibility, which the Council did not mention, may be to follow the example of Cochise County if the innovations there produce the results at which they are aimed.

The Advisory Council agrees with the state and national goal of integrating vocational and academic programs "in such a way that the individual student can choose academic, vocational, or mixed programs without jeopardizing his graduation certification." Research, planning, and experimentation are recommended "in order to incorporate separate schools, skill center and educational tracks into the educational and social mainstream of the academic high schools."

Several of the efforts by the State Department of Vocational Education to improve and expand career education in the schools are strongly endorsed by the Advisory Council, notably the increasing emphasis on cooperative education. The State's shift to performance budgeting from institutional and service allocations is commended, but the Council notes that "there is no way to make comparison with earlier non-comparable data, and experience is too limited to permit detailed recommendations for change." The Council is very insistent that expenditure data for vocational education be developed as needed in cost-benefit analysis, and that eventually "per capita costs be broken down by type or programs and/or by geographic area or even by individual schools." Current research supported by the State Department in this area is not mentioned by the Council, but may be expected to receive the Council's strong support.

The Advisory Council, undertaking its first year of evaluation, was naturally distressed and sometimes appalled at the lack of data needed for such evaluation. Throughout the report repeated references are made to the absence of information and research directed toward program evaluation. The State Department's followup survey is recognized, but weaknesses even in that area are pointed out. Even though the council does give frequent recognition in its report to the research and data supplied by the Research Coordinating Unit to the State Department, and comments that "development of internal computerized reporting systems is well advanced in Arizona (which appears to lead the other states in this regard)," the constant frustration caused by gaps and omissions in the data available is clearly evident and quite understandable.

CONCLUSIONS

Career education in Arizona has been a responsibility of the public schools since before statehood at the turn of the century. Under federal and state support since 1917, vocational programs have grown from agriculture, home economics and a few trade and industry classes to more than 150 occupations today. Thirty percent of the students in Arizona high schools and 23.5% in the community colleges were enrolled in vocational education programs during the past year. Sixty-six percent of all institutional skill training in the state is administered by the State Department of Vocational Education, including MDTA and adult classes utilizing for the most part school facilities, equipment and instructional personnel. Private schools, special programs for the disadvantaged, the Bureau of Indian Affairs, and apprenticeship account for the rest. Altogether, 103,849 persons were enrolled in public and private training programs in Arizona during the past year. This figure includes home economics useful students, but does not include industrial arts or general business.

A consistent effort has been underway since 1962 in this state and since 1963 nationally to bring career education in the schools into closer alignment with both the needs of business and industry for skilled employees and the needs of students for saleable skills. This effort has involved major restructuring of programs, accelerated expansion of programs and enrollments, a number of totally new concepts in vocational education, closer coordination with business and industry, and a movement toward eliminating distinctions altogether between career education and academic education. Systematic planning with performance goals and annual evaluations has been inaugurated. Data systems and research have been developed on a continuing basis, and exemplary programs and innovations based on research are being established.

Considerable emphasis has been placed in recent years on career education and training for the disadvantaged and handicapped. In addition to numerous efforts in the schools to provide such students with special programs and special assistance, neighborhood programs under community and state direction have been established through federal support. The Bureau of Indian Affairs, the State Apprenticeship Council, and some of the private trade schools are also contributing to this effort. A certain amount of confusion has been created by the multiplicity of programs for the disadvantaged, but coordinating committees at community and state levels have been established to avoid unnecessary overlapping and duplication of effort and resources.

Considering the total effort to provide career education and skill training in Arizona, the record of achievement is quite impressive. On the other hand, a number of questions are raised in the present study from which additional conclusions must also be drawn. First, to what extent are the needs for employable skills being met? The State Advisory Council in its report arrives at the conclusion that no answer to this question is possible until a universe of needs for vocational education is established. Who should get vocational education? Federal and state policy as well as many educators are committed to the concept of skill training for everyone—pre-vocational skills for boys and girls in the elementary grades, job entry skills for every secondary school graduate including college preparatory students, and basic skills or advanced skills for adults who need training for employment. But this does not satisfy the Council's definition of a universe of needs because obviously it cannot be achieved, at least in the foreseeable future. Who should be trained now? And what kinds of training should be provided?

The Arizona state plan calls for a 10% increase in vocational-technical education enrollments each year for the next five years. Taking into consideration an anticipated increase in the total enrollment of 3% per year this would bring the number of students in trianing programs in the schools, including consumer homemaking, up to a level approaching 40%. The Council's question, and a very legitimate one, is this: If there are resources available only to provide skill training for one-third of those who need it today and even half five years from now, who should they be? Obviously they should be those who need it most. And the Council is asking for some definition of who the one-third or the one-half should be.

There are a number of indications in the present study that at least a direction toward such a definition is being followed. Most programs are aimed at serving those persons who are least likely to be headed for professional careers and most likely to require some kind of skill training even to get their first job. But this is roughly three-fourths of the student population, not one-third. Priorities therefore should govern their selection, and three such priorities have been set by Congress in the federal support program: students with social, economic or cultural disadvantages; students who are physically, mentally or emotionally handicapped; and students who are already out of high school.

These, of course, are by no means the only students unlikely to be headed for professional careers requiring at least four years of college, and many of them may not be the students most capable of acquiring the skills needed by business and industry. Additional priorities based on interest, aptitude, ability, and performance are needed; and to some extent they have also been established or are in the process of being established. The selection procedures through which students themselves enroll in vocational programs tend to weigh these factors. However inefficient the selection procedures may be—due to inadequate counseling in the schools, for example—educators and employers together have considerable knowledge of who can benefit most from different kinds of career education both in terms of individual accomplishment and employer satisfaction. Particular combinations of interest, aptitude, ability, and performance therefore constitute a second set of priorities.

The question must now be raised, are all students in either of these priority groups receiving career education? It is impossible to say because it is not known how many there are, who they are, or where they are located. But in looking at the distribution of career education in Arizona schools, it is not difficult to draw some conclusions. Two counties—Maricopa and Pima—enrolled 55,618 out of 79,382 persons receiving skill training last year in all programs public and private (excluding consumer homemaking). Most of the 7,443 additional trainees in special programs for the disadvantaged who could not be identified by county probably belong in this group also. Sixty-three thousand trainees selected from two counties and sixteen thousand from all the rest of the state would indicate that many persons in the priority groups in the outlying counties are not receiving career education or skill training. This is a ratio of four trainees in Maricopa and Pima counties to each one in the rest of the state. The population ratio is 2:7 to one.

This geographic imbalance of career education in Arizona is further borne out when the distribution of kinds of training is considered. Programs are available in 105 occupations in Maricopa county and eighty-three in Pima county while altogether in Apache, Greenlee, Mohave and Santa Cruz counties only fifty-one occupational training programs were offered last year. None of the four counties by itself had even half that many, and students in Santa Cruz could only choose from seven occupations in which skill training was being offered by all agenices in the state, public and private. Each of the four lowest populated counties contains a substantial number of disadvantaged persons.

Even within Maricopa and Pima counties, actual access to career education in the schools is uneven. Phoenix Union High School is an area vocational school and enrolls students from other institutions. In a sense, all students in the county have equal opportunity to go there for their choice of thirty-four occupations in which training is available. But in fact, considering normal difficulties of transportation and dual registration, students in Glendale High School or Mesa High School for example—twenty and twelve miles away—do not have this choice. Mesa offers fifteen occupational programs and Glendale, where the percentage of disadvantaged is fairly high, offers eleven. These are only examples; the uneven distribution of career education is a general situation within the populous counties as well as in the state as a whole.

On the other hand, much of the expansion of training programs during the past few years under the leadership of the State Department of Vocational Education has been into new schools and schools where only limited offerings were available. In 1969–70 alone, 107 new occupational programs were added in secondary and post-secondary schools where they were not available before.

It may be concluded, therefore, that although many persons in the priority groups in Arizona are not yet receiving career education or skill training, they are the principal target populations as growth and expansion take place. This is evident in several ways. Efforts by the State Department to allocate funds and establish new programs for handicapped, disadvantaged, and post-secondary students are directed at one set of priorities. Efforts to improve counseling in the schools, the use of industry advisory committees, co-op programs, and research of the kind carried out in the health occupations and engineering technology are directed at the second set of priorities.

A further conclusion is that, while a universe of needs has not been specifically defined in Arizona, a system of priorities is in operation which may be just as effective and perhaps more realistic. The problems involved in getting agreement on any list of specific target populations, and then evaluating the state's total training effort on such a limited basis, would very likely result in directing excessive amounts of administrative time and effort into insignificant detail. As a model for growth and expansion, such a system of priorities may represent more an ideal than a formal program; but it is nevertheless contained in a variety of documents, policy statements, and administrative decisions. It is evident in the Arizona state plan and in the State Department's efforts to implement the state plan, both of which follow the federal legislation of 1968 and prior state legislation.

In summary, Arizona's system of priorities in career education and skill training consists of two first-level sets of priorities of equal value. Students with social, economic, and cultural disadvantages; students with physical, mental and emotional handicaps; and students already out of high school make up one set. Students who have the right combinations of interest, aptitude, ability, and performance to benefit most from skill training and who will be of most benefit to business and industry make up the other set. A second level of priority includes all students who will eventually seek employment without completing four years of college, roughly 75% of all elementary and secondary students. The third and final level of priority is the ultimate goal of career education—every student enrolled in the elementary and secondary schools and every post-secondary student and adult who needs technical training, retraining, or additional basic education.

To the extent that such a system of priorities is indeed in effect in Arizona, logical and feasible goals for career education have been established. The next question is: To what extent are they being reached? Are the students who need training most *at this time* the ones who are being trained, and conversely, are the students *now* enrolled in career education courses and other training programs the ones who need most to be there? Are the programs offered *at this time* the ones business and industry most need students to be prepared in, and conversely, are the kinds of training and preparation needed most by business and industry *now* being offered in the schools? Do the one-year and five-year performance objectives of the state plan, based on the above goals and priorities, lead to these results? The answers are not yet available.

This leads to the next question and one of the most critical in any assessment of career education in this or any other state. How can the schools or the State Department of Vocational Education or the U.S. Office of Education know if the right students are being enrolled and if they are getting the right kinds of training and education? It is more than a problem of evaluation; it is a problem of necessary information on which to base evaluation. The U.S. Office has required certain kinds of quantitative data for several years, basically to know how many students were being trained and how many were being placed in jobs when they complete their training. More recently, since the 1968 legislation contains special provisions for the handicapped, disadvantaged, post-secondary, consumer homemaking, co-op, work study and exemplary programs, the numbers of students in these categories must be reported. However, virtually no effort is made to assure the accuracy of these statistics as reported by the states and in most cases there is little reason to believe they are accurate. In a few states, including Arizona, uniform collection procedures and automatic data processing have developed at least this much reliable information for evaluating career education, and while this is a good beginning it is far from adequate.

The need for additional information is clearly evident in the present study, as it was also evident to the State Advisory Council. Quantitative evaluation is severely handicapped without enrollment and followup data from non-vocational students as well as from those in vocational programs, and from trainees in all publicly supported manpower programs as well as from those in the schools. Cost evaluation—including marginal cost comparisons between programs and between institutions, cost effectiveness, and cost efficiency—is impossible without uniform detailed cost data from all institutions. Qualitative evaluation of program results is equally impossible without more sophisticated employment data, without statistical data which measure economic and social benefits other than immediate job placement, and without various kinds of subjective data from graduates, dropouts, employers, and perhaps other groups.

The problems in getting these kinds of data are very great but not insurmountable. In Arizona considerable initiative has been shown by the State Department of Vocational Education, the State Employment Service, the universities and several community colleges and secondary schools in developing research and data systems. With sufficient support, the information necessary for proper evaluation of the state's entire effort in career education and skill training should be available within a relatively short time. Until then, the question of knowing if the right students are being enrolled and if they are in the right kinds of programs will remain critical.

One final question should perhaps be raised: To what extent do overlapping and competing programs waste public resources and reduce efficiency in the total effort to provide skill training in Arizona? Research in the present study neither confirms nor disproves that such a problem exists, but it is suggested by a multiplicity of publicly supported programs all with the same objectives. It is a question of some concern to the State Advisory Council, which recommends in its report that control over all manpower resources and training should be centralized in the Governor's office. Legislation has been introduced both in Congress and the state legislature to coordinate all manpower training, including some of the responsibilities now exercised by educational agencies and institutions, through the Department of Labor in the federal government and a newly created Human Resources Department at the state level.

In the opinion of a great many individuals and groups testifying before the Congressional Committees on this legislation, the cure would be worse than the disease, if indeed there is a disease. While the present study makes little if any contribution to factual knowledge on the subject, it does lead to the conclusion that other problems are much more pressing. There is no indication that duplication or overlapping of programs is a problem at all at the present time or in the foreseeable future. On the other hand, there is a history in this state of cooperation among public agencies and institutions, and the distribution of skill training programs appears to be supplementary rather than competitive. The only exception to this may be in federally supported programs contracted to private industry in Phoenix and Chandler, yet in both cases after the programs got under way they seem to have found gaps to be filled in the overall training picture rather than compete with existing programs.

In view of the state's apparent success under a system of cooperating relationship between agencies, there would seem to be no compelling reason to substitute a centralized authority as recommended by the Advisory Council. Even if such a centralized authority were advisable, it is difficult to see what would be gained by placing this under the political control of the Governor's office rather than under the professional administration of the State Department of Vocational Education where two-thirds of all training and three-fourths of all publicly supported training is now being administered.

RECOMMENDATIONS

The recommendations which follow are based on the conclusions above and are addressed to school boards and schools in Arizona, to the State Board of Education and the State Board of Vocational Education, to the State Legislature, and the public. They coincide in several respects with recommendations made by the State Advisory Council for Vocational Education, and also with recommendations published recently by the National Advisory Council for Vocational Education. These points of agreement, arrived at from three separate approaches to the subject, are noted where they occur.

1. *More use should be made of the schools than is being done at the present time in providing skill training for adults as well as youth.*—Facilities and equipment already available should not be duplicated elsewhere until maximum utilization is achieved through evening programs, weekend classes, and year-round scheduling. Expansion of these facilities to meet the needs of entire communities has greater potential benefit per dollar of cost than adding facilities elsewhere because of their utilization by students in multi-skill and occupational cluster programs as well as in single skill training. The need for more occupational offerings is as great if not more so than the need for more persons to receive training, especially in the outlying counties but also throughout the populous areas of Phoenix and Tucson. Civic leaders and educators alike have long deplored the costly practice of building schools to be used only seven or eight hours a day, five days a week, nine months out of the year. It is equally indefensible to build schools and limit their use largely to academic studies when at least three-fourths of the students must also have skill training and must go somewhere else to get it, usually at the taxpayer's expense. The State Advisory Council supports this concept in one of its recommendations:

> The geographical dispersion of Arizona's population and its industrial structure require the further development of multi-district secondary vocational education centers in order to provide vocational program choice to students without undue strain on the financial resources of the individual school districts. Job development, career guidance and use of the statewide job information system should be incorporated into the planning and activities of such multi-schools. The business community should actively participate in order to assure that enrollees learn really saleable skills.

Multi-district vocational centers offer one approach to developing community-wide facilities if they are not intended to exclude career education and skill training eventually in all communities. The National Advisory Council recommends that, "Every secondary school should be an employment agency." It points out the colleges and universities have operated employment offices for their students for years and says,

> A school in which getting a job is part of the curriculum is more likely to have students who understand why reading and mathematics make a difference than a school which regards employment as somebody else's business.

2. *Comprehensive career education programs should be established in all secondary schools.*—This is what the National Advisory Council is recommending. Many secondary school superintendents in Arizona are asking the State Department for help in getting comprehensive programs under way. All ten high school districts in Cochise County have joined together in a common effort to bring this about in their schools. The President of the State Board of Education has publicly

advocated a program of this kind for years. It is essential if the modern concept of a career ladder rather than terminal education and training is to be fully realized. In a comprehensive program academic education and career education are combined so that all graduates have an open choice of going on to higher levels of education or seeking immediate employment. In either case, their opportunities for advancement are not closed because they can go back to school or into employment at successively higher levels, limited only by their interest and ability.

The National Advisory Council makes a strong point in favor of comprehensive education, as many others have done, in dealing with the dropout problem:

> This council recommends a basic change in the national attitude toward dropouts. Currently, they are considered failures. The President of the United States annually appoints a committee to keep them in school. Critics and citizens measure the performance of school systems by their ability to reduce the number who drop out. Those who do drop out are considered disgraces, are lost by the school systems, and rarely welcomed back.
>
> Where our educational system fails these young people is not so much in its inability to halt their early departure from school, as in its failure to recapture them later. A school system should in fact, as well as in theory, keep jurisdiction over the young people within its borders until they may be properly regarded as adults.

Comprehensive education is a goal which, if adopted, would require a number of years to implement and would involve considerable changes in curriculum, faculty, school organization, and facilities. It would take more money to operate than simply offering a basic college preparatory program supplemented by vocational courses for part of the students. It would, however, give many students in high school a reason for being there more easily understood by them and more easily justified in terms of cost than what they have at the present time.

3. *Research should be expanded along three major lines each closely related to the others, and responsibility in each case as well as financial resources sufficient to carry out the responsibility should be provided.*—Economic research, educational research, and data systems are equally essential for career education and skill training to be capable of doing what they are supposed to do efficiently and effectively.

Arizona needs a computer-operated economic model of considerably more sophistication than is now available to use in all kinds of planning and development, and if one were available its use in making employment projections by complex occupational definitions would take at least some of the guess work out of matching skill training with employment opportunities. Research in changing occupational skills and knowledge, job analysis, combinations of skill requirements, and new technical developments should be continuously carried on and related to other economic variables. The Department of Economic Planning and Development and the Employment Service, working with the three universities, has the capability of doing this. These agencies and institutions in Arizona have an excellent record of cooperation in both basic and applied research, and given the necessary responsibility and funds they can provide educators with regularly updated information on the kinds of training needed, the kinds of persons needed, and much of the content that should go into skill training programs.

Educational research should be continuous, cumulative, and closely coordinated with what is being done all over the country as well as within the state. If career education programs are going to be kept up to date with advancing technology both in education itself and in business and industry, and if they are going to be operated efficiently and effectively, they must be based on a regular program of research rather than sporadic starting and stopping. It should be a total program which includes continuous identification of research needs followed by coordination with research available and in progress elsewhere, design and development of projects within the areas of greatest need, dissemination of results, field testing in exemplary programs, and full implementation as justified by results.

Arizona has a good working system for doing this but has not been able to put enough money into it to make it completely effective. A state-wide vocational research council representing educators, researchers, administrators, labor, business and industry has been inactive for most of a year because federal funds for sponsored research have been cut off and state funds have not been sufficient. From previous meetings of the council a wide range of needs have been identified, particularly research in career guidance and counseling, prevocational education and orientation to the world of work, and cost efficiency/effectiveness analysis. A number of projects have been designed and should be started, but it is as important to keep them going as to start them in the first place. Vocational research throughout the country suffers from lack of continuity due for the most part to lack of reliable support.

The need for data systems is most critical, and although Arizona has moved aggressively in dealing with this problem much more needs to be done. A student data bank for all secondary students should be established if for no other reason than to know who they are—their interests, aptitudes, abilities and performance. The most obvious benefit from this would be in the use of computer-assisted career counseling, but it would also make possible the identification of target groups for priority career education and much more accurate measurement of the directions in which growth and expansion take place. A cost data system covering all educational programs, academic as well as vocational, and all publicly supported training programs, should be developed as soon as possible. Until this is done neither educators nor school boards and the legislature have any way of knowing what the actual cost is for any of these programs, and no way of knowing if they are worth the cost. It is not only desirable but crucial that data be available indicating what programs produce greater benefits per dollar spent than others, and perhaps where public funds are being used at such a high cost benefit ratio that even their social value cannot be justified. Cost data are needed in making proper decisions on what courses to add and what not to add in developing comprehensive high school curricula. Cost alone is by no means the only factor to be considered in expanding or changing educational programs, but it is far too important a factor to be left to "ball park" estimating and unreliable data as is too often the case at the present time.

In considering the need for expanding research in career education and skill training, consideration should also be given at both the federal and state levels of government to whose responsibility this should be and how the necessary funds should be provided. The Vocational Education Amendments of 1968 require that 10% of the Federal allotments to the states be used for research, half of which goes to the states and the other half is reserve for projects of national significance. On paper this is an excellent idea, but in practice it has not worked as well as it should. Congress does not always appropriate the full 10%, and the President does not always use even what is appropriated. Last year the amount actually spent was one-half of 1%.

Assuming that Congress and the President were to follow the statutory provisions for vocational research support, it would still fall short of what is actually needed. A more realistic approach would be to use federal funds when they are available for sponsored research and use state funds for developing data systems, for economic research in the universities and state agencies, and for administering the total program including research dissemination. Responsibility for sponsored research coordination, and dissemination should remain with the Research Coordinating Unit. Responsibility for data systems—at least after they have been developed—should be given to the State Education Department's Data Processing Division. Responsibility for economic research should remain with the Department of Economic Planning and Development and the Employment Service, and the professional resources of the universities should continue to be used as needed. Each agency and institution should be provided with budgeted funds in the legislative appropriations for carrying out their responsibilities.

4. *A better system of financing career education and skill training should be found.*—The National Advisory Council recommends federal support for all or most of the added cost over the cost of academic programs.

> A principal reason local school districts have been slow to make vocational education programs available to all who want them is that the initial costs of vocational education are higher than for college preparatory programs. The efficient way to use the Federal dollar to encourage vocational and technical education as career preparation is for the Federal Government to pay all or a substantial part of these *extra* costs.

Experience with Federal support since 1963 has not been altogther reassuring but the Council's suggestion is basically sound. Too often where the need is greatest local schools can least afford the added cost. State taxes are stretched almost as thin as local taxes, but support for career education at this level should probably be given more serious consideration. It should be based on actual needs of the schools rather than on matching federal funds or on what was appropriated the previous year. The interest of the state's own economy would probably justify a complete review of this appropriation. At the present time the added cost of skill training for half of the secondary students in Arizona would be an estimated \$5.2 million, and for three-fourths of the secondary students \$7.8 million.[1] Adding post-secondary and adult enrollments the total might be \$18 to \$20 million.[2] Nationally the additional cost of skill training in the schools could go as high as \$2 billion to provide adequately for the present student population.

The question is, can the national economy afford this? And should it really be a federal responsibility, or should it be a federal-state responsibility with one level of government or the other underwriting the final cost? In any case, is this something that would be nice to do but other things must come first, or is it something without which the cost of rehabilitation programs, welfare, crime and violence would be even greater? Whatever the facts may be, their implications are serious enough to warrant finding out what can be done, what should be done, and what must be done.

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[1] This estimate is based on current costs in a few school districts in other states where fairly reliable cost data are available. Some occupational programs cost as little as \$55 per student year more than academic programs while others run as high as \$400, with \$80 as the median.

[2] Estimates of post-secondary costs are based on preliminary data from the Maricopa County Junior College District in an unpublished report on per student costs of all programs including academic and technical in 1969–70.

ARKANSAS

State Director, J. Marion Adams

JUNE 10, 1971.

STATEMENT OF PROGRESS MADE IN VOCATIONAL EDUCATION IN ARKANSAS SINCE PASSAGE OF PUBLIC LAW 90-576

(Prepared by J. Marion Adams, State Director of Vocational, Technical, and Adult Education, State Department of Education, Little Rock, Ark.)

Significant legislative changes contained in the Vocational Education Amendments of 1968 (PL 90-576) resulted in expanded availability, broadened scope, and improved quality of training. In the testimony which follows the legislative changes are listed and followed by a description of progress made in Arkansas since passage of the Amendments. In a few instances "roadblocks" have been encountered. They were inherent in the legislation, resulted from practices related to implementing the legislation, or occurred as a result of concurrent developments in other aspects of educational administration. These are noted in the appropriate item of testimony under "Problems encountered." Recommendations for improving Federal law and administration of vocational education are listed at the end of the statement.

1. *Increase in the funding authorization to a level that makes possible tremendous expansion in vocational training as appropriations become available.*—Although Congress has not funded to full authorization, Arkansas allotments of Federal vocational funds increased 31% over the previous year in FY 70 and 12% over the previous year in FY 71. Funds available to the State from PL 90-576 for the years were:

1968-69	$3,404,568
1969-70	4,481,812
1970-71	5,035,798

Enrollments for the same periods compared as follows:

	Total	Secondary	Postsecondary	Adult	Disadvantaged &	Handicapped
1968-69	94,902	50,091	5,853	37,233	1,725	
1969-70	101,652	57,262	6,412	37,968	28,060	2,029
1970-71[1]	113,700	62,900	6,800	44,000	30,000	3,000

[1] Projection.

In spite of increased enrollments during FY 71, only 11.4% of Arkansas students enrolled in grades 7 through 12 are receiving some phase of training for job preparation. Students enrolled in home economics bring the percentage to 24%. According to a study made by the Commission on Coordination of Higher Education in 1968, 51% of Arkansas high school graduates receive no additional training after finishing high school. These statistics makes it "crystal clear" that within the regular programs and special programs in which these students are separated and placed in programs designed to meet the needs of the disadvantaged. Federal, state, and local funds are used to promote and operate these programs. Through the recommended use of an Advisory Committee, businesses, industry, state and community resources are made available to the programs for less-advantaged students.

These resources are in the form of finances, job placement assistance, supportive services, etc. Resource personnel are used to give disadvantaged students practical, relevant information, and orientation into the world of work. Vocational-technical school counselors are used to counsel disadvantaged students and families in continuing or furthering their training and education.

Teachers are encouraged to use varied methods and techniques to teaching in order to communicate with, motivate, and enhance learning situations for disadvantaged students.

Instructional approaches include team-teaching, unit methods of instruction, remedial instruction, and more individualized instruction that is geared to and relevant to the needs and abilities of disadvantaged students. Competent, dedicated, and concerned teachers serve both disadvantaged youth and adults.

Cooperative activities are encouraged with the departments within the local school. Math, English, reading, and social studies teachers rendered great assistance.

Vocational programs for the disadvantaged developed in cooperation with Model Cities, the Office of Economic Opportunity, M.D.T.A., and Title I are working well.

One week of in-service training for teachers held in the summer of 1970 was enhanced by the cooperative assistance of college and university teacher training personnel, Special Education personnel, and Vocational Rehabilitation Service personnel. Teaching the disadvantaged has been a cooperative effort involving all occupational areas in vocational education.

Work experience gained through cooperative-type programs has contributed significantly to the transition of the disadvantaged student from school to work. Occupational training courses offered in relation to job opportunities and responsibilities also have assisted the student in the transition from school to the world of work. Vocational-technical schools offered courses for the disadvantaged students leading specifically to jobs in selected fields. Resource personnel provided linkage between training and work, making student transition easier.

Because of their work on local and state Advisory Committees, employers are able to make significant contributions to disadvantaged students in the provision of more job openings and less discrimination against minority groups. Better informed and interested employers are willing to provide more work stations for disadvantaged students.

By serving as local school resource people, employers realize the needs of the disadvantaged student more than ever before. The occupational needs of disadvantaged students have been met by special classes designed to develop skills necessary for entering a particular labor market as established by the Employment Security Division. Orientation classes are provided to acquaint youth with the types of jobs available and the requirements needed to succeed in these jobs.

much is yet to be done in preparing Arkansas citizens for payroll occupations.

Problems encountered: For FY 70 funds were appropriated too late for sound planning. (States were notified in late March of the Federal amounts they would receive for the year ending June 30.) The Tydings Amendment to the HEW appropriation bill provided for carrying forward to FY 71 funds not used by the states in FY 70 and made the foward funding provision for each year through the appropriation for FY 73. The flexibility provided through the Tydings Amendment has been of great value in enabling states to make wisest use of funds.

Congress finalized the appropriation for education aids for FY 71, including override of the President's veto, in August, 1970. Although the Secretary of Health, Education, and Welfare did not announce until October 22 that appropriations for all formula grants to the states were released at the full appropriation level, the time table for making funds available to the states was much improved over the previous fiscal year.

2. *Set-aside requirements that virtually guarantee accelerated effort on the part of states in providing vocational training for disadvantaged and handicapped individuals.*—(The disadvantaged program is further encouraged by specific treatment under 102b of the Act). Reports required of the states to determine compliance with the law also require related information (enrollments, number of teachers, etc.) that serve as a basic evaluation of the state's programs for the disadvantaged and handicapped.

During the first year of operation under PL 90-576, 32% of students enrolled in vocational education were identified as disadvantaged and/or handicapped and given special help for job preparation. During the previous year only 5% of students enrolled in vocational education had been given special help to meet conditions of the disadvantaged and handicapped.

A discussion of details involved in improving and expanding offerings for the disadvantaged and handicapped follows:

As a result of the mandates of the 1968 Vocational Education Amendments, a Director for Special Vocational Programs for the Disadvantaged and Handicapped was appointed. This position was created July 1, 1969. Program guidelines were prepared and explained to vocational educators, school administrators, counselors, and other persons interested in vocational education in August, 1969.

A State Advisory Committee was formulated with the staff of the Department of Education in planning and implementing programs for the disadvantaged and handicapped. In cooperation with the State Department of Education, they sponsored a state-wide seminar on training the disadvantaged for jobs in December, 1969. Each local agency working with the disadvantaged and handicapped has been asked to use the services of an Advisory Committee. Most educational agencies are reporting the use of active Advisory Committees.

A DESCRIPTIVE REPORT OF THE PROGRAM FOR THE DISADVANTAGED

Instructional programs in vocational education for the disadvantaged are conducted in special classes, special programs, and regular programs. Much emphasis is placed on the initiation of special classes

Major vocational-technical schools offered courses for the disadvantaged in all of the occupational areas.

Special program features for secondary disadvantaged youth consisted of special classes reaching across occupational areas, as well as academic fields of study. On the post-secondary and adult levels, classes specifically designed to meet the needs of acquiring a skill or skills to enter the world of work have been conducted to assist disadvantaged adults in up-grading their employment skills to raise their economic status.

Program trends on the secondary level are to maintain and improve special classes where needed. Improvements will be in the form of supportive and ancillary services, teacher aides, instructional supplies and materials. Whenever possible, students are encouraged to remain in the regular programs and have their needs met through the provision of extra services, assistance, and curriculum modification.

Special financial assistance is given to schools in which special classes for the disadvantaged are in operation. This assistance is provided to purchase instructional supplies and materials in schools with high drop-out rates and schools located in economically depressed areas.

Five special programs of vocational education are provided in Arkansas juvenile institutions. The total population is disadvantaged, and over 70% are emotionally disturbed. These institutions had no form of vocational education prior to passage of PL 90–576.

A total of 223 secondary schools were reimbursed during FY 70 through the basic vocational education formula for providing one or more periods of special instruction, counseling, and guidance for disadvantaged students.

DeQueen High School, DeQueen, Arkansas, conducted an outstanding program for disadvantaged girls through their Home Economics program. This program provided a special class for approximately 15 girls for three years. The success of this program has been greatly enhanced by total school and community involvement from its inception to the present time.

Another model program for disadvantaged youth was conducted at the Rogers High School, Rogers, Arkansas. This was a special program in which 120 disadvantaged students were pulled out of the regular program and put into a special program. Team teaching and the use of many innovative techniques were associated with the success of this program.

The needs of the disadvantaged are not being fully met; however, considerable effort has been expended in this area. Additional in-service training of educational administrators is needed. In-service training of teachers should be extended into grade schools to reach the needs of the disadvantaged child at an earlier age. Additional information and assistance is needed from the United States Office of Education in assisting the states in serving the needs of the disadvantaged in regular classes and program instead of special classes and programs.

Improved teacher education for teachers of the disadvantaged should be provided. This could be done in several ways, one of which could be stipends for "live-ins" where prospective teachers can develop an improved understanding of disadvantaged people. This would also enable teacher trainees to identify with disadvantaged people. Better preparation of prospective teachers is a "must," since well prepared teachers are very vital in meeting the needs of the disadvantaged.

Salary supplements for teachers working with disadvantaged students would be helpful. Some type of incentive should be provided for the extra work, time, patience, and understanding needed to do an effective job of working with disadvantaged students.

A DESCRIPTIVE REPORT OF THE PROGRAM FOR THE HANDICAPPED

Vocational Education Programs for the handicapped were initiated with special emphasis on state institutions equipped with facilities and services needed to serve this group. A large portion of the vocational needs of the handicapped is met through regular vocational education programs. Federal, state, and local funds are used to support handicapped programs, depending on the level of the educational operation (local or state).

Advisory committees were used in the initiation and promotion of handicapped programs on both the state and local levels. These committees involved businessmen, industrial people, lay people, educators, and the handicapped themselves. Through the involvement of these people, many community and state resources were made available. Some of the resources were personnel, job placement services, student recruitment, selection of training areas, job openings for the handicapped, etc.

Institutions in which vocational education for the handicapped were initiated or expanded included the state schools for the Deaf and Blind, the Children's Colonies, Arkansas Rehabilitation Center, area post-secondary schools, and the state's Correctional Institutions.

Curriculums were developed that are relevant to the needs of these individuals. This was aided by surveys and tests. Specific training programs were initiated only after it was determined that there was a need for such training and that employment opportunities would be available.

Instructional programs were conducted in such manner as to make learning practical and relevant to real life situations. Curriculums were designed or modified to meet the needs of all individuals enrolled. Even though handicapped students were grouped together in special institutions, their learning abilities varied considerably and required large amounts of individual instruction.

A special communicative skills course was provided in order to enable individuals to relate their speaking and writing to their training experiences.

Work-experience programs were established for handicapped students. In this program the students worked one-half day and attended school for one-half day. These programs were initiated on the junior high school and senior high school levels. Handicapped students had difficulty in making the transition from school to work. Additional counseling and supervision by work-experience coordinators and counselors was helpful in this area.

Employers were encouraged to realize that the handicapped can be useful, helpful, and self-sustaining through Advisory Committee assistance, and through state and community involvement in program initiation and promotion. Job listings were made of jobs for the handicapped. Employers are prone to neglect the handicapped in their policy of hiring, but some employers were encouraged to take a second look at the jobs that could be done by the handicapped. Several success stories are available because of this effort.

The occupational needs of the handicapped were found to be much more critical than those of the average, normal individual. There is a limited job market for the handicapped. Much of the training has been done in service and maintenance activities with the hope that these individuals may be able to find employment in their local communities after returning from their institutional training.

Special programs for the handicapped were designed in consideration of student ability and limitations, both physical and mental.

All secondary programs for handicapped students were work-related, a practice which allowed educational development in school and work adjustment to be gained on the job.

Several programs of vocational education for seriously, emotionally disturbed inmates were initiated in state institutions in which there had been no vocational training of any sort. These programs are being operated on the post-secondary and adult levels. It is hoped that these inmates will be able to realize a better life after completion of their training programs and release from the institutions. The training is synchronized with their date of release.

Several programs of vocational education have been contracted with the Arkansas Rehabilitation Center at Hot Springs, Arkansas, on a per student basis. This is a mixed post-secondary and adult program housed in a residential type training center owned and operated by the Arkansas Rehabilitation Service. The students are provided vocational instruction, training, guidance, counseling, and supportive services needed.

There is a dire need for additional trained teachers and personnel to work with the handicapped.

The staff responsible for programs for the disadvantaged and handicapped hopes the following can be accomplished at the state level.

A. To spell out more specifically policies relating to the initiation and operation of vocational education programs for the handicapped.

B. To encourage teacher-training institutions to place more emphasis on the needs of the handicapped student in the area of teacher preparation.

C. To increase the funding formula for handicapped programs in consideration of the excess costs involved.

Statistical Data Related to Programs for the Disadvantaged and Handicapped.—An occupational breakdown of disadvantaged and handicapped students enrolled in vocational education during FY 1970 follows:

	Disadvantaged	Handicapped
Vocational agriculture	8,016	222
Distributive education	640	158
Health occupations	762	55
Consumer and homemaking education	11,078	586
Home economics (occupational)	1,050	31
Office occupations	1,314	234
Technical education	33	9
Trade and industrial education	2,177	348
Group guidance	2,990	386
Total	28,060	2,029

Several new special programs of vocational education for the disadvantaged and handicapped have been initiated since July 1, 1970. These are listed below.

Institution and type of program:	*Number of Students*
Arkansas Training School for Boys (Pine Bluff): Vocational Agriculture	16
Arkansas Training School for Boys (Wrightsville): Automobile mechanics	178
Arkansas Training School for Girls:	
Nurse's aide	12
Cosmetology	9
Food preparation	54
Arkansas Children's Colony, Arkadelphia:	
Occupational homemaker	37
Farmworker	39
Personal adjustment	37
Yard and groundsworker	26
Laundryworker	44
Arkansas Children's Colony, McRae:	
Kitchenworker	29
Laundryworker	29
Sheltered work activities	28
Garden and truck patch worker	28
Yards and groundsworker	28
Custodial	28
Arkansas Children's Colony:	
Housekeeping aide	10
Restaurant aide	10
General shop	10
Greenhouse and garden	10
Adult evening classes	15
Arkansas School for the Deaf:	
Office occupations	13
Graphic arts	11
Communicative skills	28
Machine shop	10
Cabinetmaking	13
Cleaning and pressing	9
Shoe repair	17
Welding	13
Graphic arts	14
Communicative skills	29
Communicative skills	34
Communicative skills	23
Communicative skills	25
Fargo Area Occupational Training Center:	
Welding	22
Auto mechanics	31
Sheet metal	22
Building trades technology	22
Dell High School: Related vocational education program	26
Metropolitan High School:	
Office occupations program	118
Communicative skills	245
North Little Rock High School: Exploratory construction program	65
Arkansas Rehabilitation Service:	
Data processing	14
Service station attendant	6
Drycleaning	8
Welding	5
Russellville High School: Group guidance and introduction to the world of work for the disadvantaged and handicapped	60

	Number of Students
Texarkana High School: Vocational outreach training program for school dropouts (Potential enrollment)	28
Tucker Reformatory:	
Building trades	9
Cooking and baking	8
Drafting	8
Welding	8

Additional special programs that have been initiated for the disadvantaged and handicapped are:

A. At Winslow, Arkansas through the cooperation of the Washing County School District and Boy Land of Arkansas, an exploratory general shop program is being started for the boys for Boy Land and the high school students at Winslow High School.

B. Special program coordinators have been placed at the following vocational-technical schools to work with high school dropouts, and other disadvantaged and handicapped students: Delta Vocational-Technical School, Marked Tree; Cotton Boll Vocational-Technical School, Burdette; Arkansas Valley Vocational-Technical School, Ozark; Crowley's Ridge Vocational-Technical School, Forrest City; Twin Lakes Vocational-Technical School, Harrison; Red River Vocational-Technical School, Hope.

C. Special assistance is being rendered to the secondary schools for the purchase of instructional supplies and materials in the amount of $100.00 per class to a maximum of $300.00 per school district. This is matched on a 50–50 basis by the local school district.

D. Special assistance is being provided in securing services of teacher aides on an hourly basis. The cost is matched by local schools on a 50–50 basis.

E. Plans have been finalized for the initiation of a store front training facility at Eudora High School. A Building Trades Program was started at the beginning of the second semester.

Expanded service are planned for several of the existing special programs:

A. The Boys' Training School is in the process of building a new vocational building at Wrightsville. A minimum of four additional programs will be initiated as soon as the building is completed. These include: Building Technology, Welding, Drafting, and Food Service.

B. The Division of Correction is nearing completion of a vocational building at Cummins Reformatory and we are hopeful that we can find the funds to initiate four vocational programs at this institution. It is hoped that courses can be funded in Building Trades, Air Conditioning and Refrigeration, Auto Mechanics, and Office Education.

C. A one-day workshop is being held for the Directors of Special Programs in the vocational-technical schools each month. These coordinators are using the resources of the State Department of Education, the local community, and the county.

D. Two workshops are planned for this summer of 1971, one for those teachers working with handicapped students and one for the teachers working with disadvantaged students.

A one-week in-service training program for teachers working with disadvantaged and handicapped students was conducted at Camp Couchdale during the week of June 22–26, 1970. Ninety-seven teachers attended and prepared a monograph that has been very helpful to teachers.

E. A mobile machine shop unit has been put into operation and is well received. This unit provides exploratory training in the operation of metal working machines such as lathes and milling machines and has one numerical control unit. The equipment is housed in a 12'×60' reinforced trailer having central heat and air conditioning. Through use of the unit, courses have been completed at six high schools. A total of 361 secondary students and 42 students were enrolled.

Problems encountered: Aside from late funding which has been mentioned previously, the greatest problem encountered in continuing to plan and implement program for the disadvantaged and handicapped is determining where efforts of educational groups can best serve needs of individuals without overlapping with or duplicating efforts of other groups. This is not stated as criticism of personnel of other agencies, but it is a matter of grave concern.

3. *Built in set-aside requirements for training of persons who have completed or left high school.*—The set-aside requirement of the '68 Amendments has not stimulated expansion of training at the post-secondary level, for the '63 Act had served this purpose in Arkansas to the extent that the State far exceeded the set-aside requirements at the time the new legislation was enacted. However, increased funds made available by the '68 Amendments have been helpful.

ENROLLMENT AND EXPENDITURE

Although most post-secondary institutions have waiting lists of students as large as their present enrollment and returning veterans are increasing the need for additional facilities, figures listed below reflect real progress in providing vocational training at the post-secondary level since passage of the '68 Amendments.

		Expenditures		
	Enrollment	State and local	Federal	Total
Fiscal year 1968	4,255	$1,648,526	$1,593,856	$3,242,382
Fiscal year 1970	6,412	$2,565,637	$2,048,138	$4,613,775
Increase (percent)	42	56	28.5	42

Major emphasis in expansion of offerings has been in the health occupations fields. Additional offerings include five programs in associate degree nursing, one program for dental hygienists, and one additional program for licensed practical nurses. Other new offerings include a mid-management course in distributive education, a masonry course, and one heavy equipment operators course.

CURRENT STATUS

Sixteen institutions offer post-secondary courses in vocational education on an area basis. Thirteen schools are operated by the State Board for Vocational Education, and two are community colleges. A, M, and N College at Pine Bluff operates an area program of vocational training also. A list of the area schools and courses offered is carried on page 13.

In addition to institutions mentioned above, six four-year colleges offer associate degree programs in health occupations.

COURSES AVAILABLE

IN

AREA VOCATIONAL-TECHNICAL PROGRAMS

*March 1, 1971***

	A. M. & N. College, Pine Bluff	Ark. Valley Vo-Tech, Ozark	Cotton Boll Vo-Tech, Burdette	Crowley's Ridge Vo-Tech, Forrest City	Delta Vo-Tech, Marked Tree	Foothills Vo-Tech, Searcy	Little Rock Vo-Tech, Little Rock	Oil Belt Vo-Tech, El Dorado	Petit Jean Vo-Tech, Morrilton	Phillips County Comm. College Helena	Pines Vo-Tech, Pine Bluff	Red River Vo-Tech, Hope	Southwest Tech-Institute, Camden	Twin Lakes Vo-Tech, Harrison	Westark Jr. College, Fort Smith	Ouachita Vo-Tech, Malvern**	Ouachita Vo-Tech, Hot Springs
Advertising and Commercial Art													x				
Air Conditioning		x	x								x					x	
Appliance Service					x			x	x					x			x
Auto and Diesel Mechanics																	
Auto	x	x	x	x	x	x		x	x	x	x			x	x		x
Body Repair	x	x									x			x			
Diesel									x			x				x	
Farm Equipment & Diesel					x	x					x						
Aviation Mechanics													x				
Brick Masonry	x											x					
Cabinetmaking											x						x
Carpentry	x								x								
Civil Engineering Technology													x				
Chemical Technology													x				
Cooking & Baking											x		x	x		x	
Cosmetology	x	x			x												
Data Processing								x	x	x			x		x		
Dental Assistant							x										
Drafting	x		x	x		x		x	x	x	x		x		x	x	x
Electronics	x	x		x		x					x		x	x	x	x	
Forestry												x					
Food Processing		x															
Heavy Equipment Operation									x			x		x		x	
Instrumentation													x				
Landscaping									x								
Machine Shop	x		x	x		x		x	x		x	x	x	x	x	x	
Medical Laboratory														x*			
Office Practice																	
Secretarial		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Bookkeeping		x	x	x	x	x	x	x	x	x	x	x		x	x	x	
Nursing																	
Practical		x		x	x	x	x	x	x	x	x	x		x	x		x
Registered										x					x		
Printing									x								
Sheet Metal Fabrication			x														
Surveying									x								
Tailoring	x																
Welding	x	x	x	x	x	x		x	x		x	x	x		x	x	

** at Little Rock*
*** Ouachita School at Malvern will open in September, 1971*

NEW FACILITIES

Although the State Board for Vocational Education has not been able to allocate Federal vocational funds for new construction because present programs make heavy demands on available funds, the following construction is presently underway, utilizing funds from the Economic Development Administration:

A. Expansion of the Technical Division of Westark Community College, Fort Smith. This involves an expenditure of $1,530,000 to add programs in data processing, furniture manufacturing technology, chemical technology, and machine technology.

B. Construction of Ouachita Vocational-Technical School, Malvern. This project will cost $980,000 and will provide capacity for approximately 250 students at one time in drafting, electronics, machine shop, industrial equipment mechanics, welding, diesel mechanics, and business education.

A branch school has been opened in Hot Springs in an existing facility with a capacity of 120 in practical nursing, drafting, small motor mechanics, office machines, and building trades. This is a pilot project, enrolling both secondary and post-secondary students.

C. Black River Vocational-Technical School, Pocahontas. This project is approved for $1,000,000 but bids have not been let. The school will have a capacity of 250 in machine shop, welding, industrial equipment maintenance, diesel mechanics, auto body repair, and business education.

Problems encountered: No serious problems have been encountered other than inadequate funding. Practically all existing schools should have course offerings and facilities expanded, and a few new schools are needed in order to make training available in all areas of the State.

4. Earmarked funds and favorable matching requirements which serve as a catalyst for development in specific areas of endeavor such as exemplary programs, research, consumer and homemaking education, cooperative education, work study, and special training and development programs for vocational education personnel.—Although earmarked funds for specific purposes cause the resulting programs to require much more ancillary personnel and creative activity than broad appropriations, one only has to examine the results to determine that Congress often accomplishes its purpose through earmarking and favorable matching conditions. We are listing briefly some of the examples of Arkansas accomplishments related to earmarking of funds under special Parts of PL 90–576.

A. Part C, Vocational Research

Efforts have been made to encourage vocational educators to become involved in action oriented research activities as well as utilize research findings of previous studies.

Research activities in vocational education prior to 1968 were almost non-exstent. The first research effort was the establishment of a Research Coordination Unit for Occupational Education in 1967. Since that time, considerable progress has been made and is described below.

Some of the research endeavors in which the State has been involved are: (1) operation of the Occupational Education Research Program, (2) compiling, retrieving and disseminating of research findings, (3) field testing and developing a computerized vocational student information and follow-up system, (4) designing and initiating research projects which will contribute to the improvement and expansion of vocational education in Arkansas, and (5) providing minigrants to local educational agencies to develop innovative ideas which could improve vocational education.

The Occupational Education Research staff coordinates the collecting, editing, and compiling of vocational student data to be used in the computerized vocational student information and follow-up system each year. The staff assist in the development of research proposals and the review of proposals submitted for funding. Additional assistance is provided by acquiring and disseminating research findings upon request.

Progress in compiling, retrieving and disseminating research findings are: (1) establishment of a microfiche library, placement of microfiche readers and reader-printers at selected locations in the State, (2) acquisition of a microfiche reproducer, (3) installation of the QUERY Computer Retrieval System and the reproduction and dissemination of several research studies conducted in Arkansas.

Considerable time and effort have been devoted to the establishment of a student information and follow-up system. The system has been field tested on sample populations and periodic revisions made in the system. The purpose of the system is to provide an efficient source of data followed by an analysis to provide a sound basis for decision making for program planning and program improvement. While the system is considered in the developmental stage, it is currently being used to collect data on all vocational students in the State.

With the increase in research funds available for this fiscal year, a number of research projects have been developed and approved. These projects include such activities as leadership development, new approaches in training nurses, office simulation as a technique for training in office education, and the development and testing of elementary and junior vocational orientation materials.

A leadership development program in vocational education is approved for a duration of time for February 15, 1971, to June 30, 1972. The leadership development will provide selected vocational teachers an opportunity to develop leadership potential, and at the same time become more knowledgeable in all areas of the total vocational education program in Arkansas. Participating personnel will attend a three-week summer workshop, devote one week to participation in a self-structured area vocational school visitation, and participate in twelve weekend seminars. Completion of the program should result in a cadre of persons prepared to give strong leadership to positions such as administrators, supervisors, and coordinators of vocational programs designed to effectively meet the needs of today's student. The influx of new personnel and new ideas into already functioning agencies should provide further impetus for growth and innovative change.

A health education project has been approved for training nurse's aides to become licensed practical nurses in isolated, rural hospitals.

The present ratio of nurses in Arkansas per 100,000 population is 155, compared to a national ratio of 298 per 100,000 population. Over fifty percent of the practicing nurses in this state are working within a fifty-mile radius of Little Rock. This is a pilot program and is designed to accept certain qualified nurse's aides, upgrade their skills, expand their theoretical knowledge and provide career mobility to licensed practical nurses upon successful completion of training and the State's examination for licensed practical nurses. This project will experiment with design of a curriculum for the training of non-professionals who already have some appropriate skills and knowledge.

Research projects for office simulation have been approved for two pilot centers. One is located in a secondary school system and the other center in a post-secondary school system. The projects propose to demonstrate the possible advantages of an office simulation situation over other methods, provide students with the opportunity to gain skill and knowledge on all types of modern equipment used in the business world, and to bridge the gap between the classroom and the business world. It is expected that successful programs will develop and will serve as models for other office education programs in the State.

A project has been designed and approved to develop and test vocational orientation packets for elementary education. The major objective in this project is the preparation of instructional packets to provide vocational orientation for elementary school children, grades one through six. Elementary school personnel and other educational specialists who have expertise and experience in the preparation and use of vocational orientation materials will give special attention to developing and field testing the material as a basis for developing instructional packets for subsequent statewide use.

Another project has been approved to develop an occupational orientation curriculum based on behavioral objectives to enable the student to investigate occupations in relationship to his/her interest and abilities. The expected outcome is to provide guidance in decision making for selecting an appropriate curriculum for further study.

A mini-grant program has been initiated to assist local secondary vocational teachers who have innovative ideas but need financial assistance to implement the ideas. The primary purpose of the mini-grant project is to discover ways to improve vocational programs in Arkansas. Schools may be awarded up to $500.00 for an innovative project. Some 20–30 mini-grant projects are projected during the 1971–72 school year.

Research activities conducted in Arkansas since passage of the vocational amendments of 1968 are summarized on the following page.

Problems encountered: Our main problem was employment of personnel with research expertise but the practical ability to work with teachers, administrators, and state staff who were not research oriented. Local administrators and teachers recognized the need for research, but considerable time was required for establishment of a working base.

TABLE I.—RESEARCH PROJECTS AND ACTIVITIES CONDUCTED SINCE 1968

Research projects and/or activities	Operational period (fiscal years)			
	1969	1970	1971	1972
Occupational educational research program	X	X	X	X
Microfiche library	X	X	X	X
Dissemination activities (general request)	X	X	X	X
Acquisition of Microfiche reproducer		X	X	X
Geographic placement of Microfiche readers		X	X	X
Installation of the QUERY retrieval system			X	X
Communicative skill packets	X	X	X	X
Elementary occupational orientation project			X	X
Middle grades occupational orientation project			X	X
Secondary office simulation pilot center			X	X
Postsecondary office simulation pilot center			X	X
Health education pilot project			X	X
Leadership development project				X
Minigrant program				X

TABLE II.—TOTAL NUMBER OF PROJECTS AND ACTIVITIES

	Fiscal year—			
	1969	1970	1971	1972
Number of activities	3	5	6	6
Number of projects	1	1	6	8

B. Part D, Exemplary Programs and Projects

Arkansas combined funds available through its State allotment under 142(d) of the Amendments and those available through a contract under 142(c) to sponsor a three-year project entitled, "Pilot Occupational Educational Programs for Small Rural and Suburban Arkansas Schools in Grades Five through Twelve."

The project has been in operation for a year with eight schools participating. The following objectives are being pursued:

1. To broaden the occupational concept and awareness of youth by incorporating occupational orientation into the school curriculum beginning at grade five.
2. To create a favorable attitude in marginal students, slow learners, and socio-economically disadvantaged students regarding the value of education and its contribution to the world of work.
3. To bridge the gap between education and the world of work by relating classroom instruction to an immediate job through a general cooperative education program.
4. To provide intensive occupational guidance and counseling for all students during the last years of school and to assist in the initial placement of all students upon leaving school.
5. To provide short intensive training for seniors who have had no previous vocational training.

The project is being evaluated by the Office of Education and by an outside evaluator at the time of this writing. The State staff knows of certain needs for improvement. It is felt their ideas and ideas gained from the evaluations can be implemented to improve work being done in each of the schools during the next two years of the project. There is much optimism that the project will provide many innovative approaches for students enrolled in the participating schools and eventually for statewide and nationwide use.

Problems encountered: We encouraged schools to make tentative plans to initiate exemplary programs in FY 70, but could not definitely commit funds until the year was almost ended. This left schools undecided to the point that the actual initiation of the exemplary project was an anti-climax. This problem is diminishing and the project is developing in a fine way.

C. Part F, Consumer and Homemaking Education

Enrollment in consumer and homemaking education classes increased 5% during FY 70 over the previous year, and it was felt that the increase would have been much more pronounced if funds had been available earlier in the year. Sixty-two percent of available funds were expended in economically depressed areas and areas of high unemployment. A total of 352 secondary instructional programs were conducted, and 220 of these were in economically depressed areas.

Consumer education was incorporated into the curriculum offerings for practically every student enrolled. A total of 3,530 high school students and adults were enrolled in special consumer education classes during FY 70. The parallel figure for FY 69 was 517.

Problems encountered: The main problem was the limitation imposed by PL 90–576 on duration of funding under this Part. Subsequent legislation has relieved the problem, but planning had been hampered.

D. Part G, Cooperative Education

In FY 70 enrollment in cooperative education classes increased 13% over FY 69, and the current enrollment is approximately 25% above enrollment for FY 70. Cooperative programs are operated in each of the major occupational areas (distributive education, office education, agriculture, home economics, health occupations, and trade and industrial education) and in general cooperative education classes which are designed for schools in which it is necessary to operate programs for a variety of occupations.

Since PL 90–576 provides for as much as 100% funding of programs, Arkansas adopted the policy of reimbursing local districts for 100% of the costs of the salaries of coordinators plus travel allowances and allowances for instructional materials during the first year of operation. During the second year school districts are reimbursed 50% of the costs of the coordinator's salary plus a travel allowance. Thereafter districts are funded on Part G programs on the basis of the regular Part B formula.

Members of the staff feel that Part G is a very significant segment of PL 90–576. Inherent in the programs are remedies for many of the problems of potential drop-outs, students in need of special adult supervision and interest, and students who are more employment oriented than academically oriented. Those who resist academic endeavor usually experience a change in attitude as they recognize the need for academic tools in the world of work.

Problems encountered: The primary problem was late funding for FY 70. Increased funding in the future would be very helpful.

D. Part H, Work Study

During FY 70 a total of 125 vocational students were employed in the work study program in Arkansas. This number included 124 disadvantaged students and one handicapped student. Ninety-five of the students were enrolled at the secondary level; thirty at the post-secondary level. A total of 226 disadvantaged students are employed under work study during FY 71. Twenty of the students are post-secondary, and 206 are secondary.

Availability of summer employment under work study is considered very valuable to students, especially in cases where employment is related to the vocational course the student is pursuing. Arkansas could use wisely much more than the amount of funds currently available.

Problems encountered: Limitations on hours students can work and amounts they can earn are too low. Wages have increased considerably since work study legislation was enacted (originally in 1963) and we feel that students can work more hours than the law permits without endangering their scholastic progress.

E. Title II, Vocational Education Leadership and Professional Development Amendment to Higher Education Act of 1965

Arkansas has one teacher pursuing a doctoral program at Oklahoma State University through funds made available under this Title. A planning grant has been made available to Arkansas for developing a long-range plan of professional development. When the plan has been completed, it is hope that significant funding can be made for teacher preparation, upgrading of teachers currently employed, and for staff development.

5. *Mandate for varying the funding formula, giving consideration to manpower needs, job opportunities, and other factors.*—Although we do not feel that we have been completely successful in attaining the goals Congress had in mind, we feel that the legislative requirement has netted results. It has caused state and local leaders to plan and evaluate programs on the basis of *training* and *placing* people, not merely *training* people. The concept has spread to the extent that local leaders who thought little in the past about what happens to students once they graduate or leave school are taking a new look at the responsibility of the school.

Problems encountered: Our greatest problem is getting adequate data on manpower needs and job opportunities. Some progress has been made at the state level, but local school districts have a real problem in securing valid data.

Late funding during the first year that the State operated under the new formula caused much unrest in local school districts and resulted in less effective planning than they would have accomplished otherwise.

6. *Insured evaluation of programs through State Advisory Councils.*—The Arkansas Advisory Council for Vocational Technical Education has made the following contributions towards vocational education in the state:

A. They have conducted and published results of a comprehensive evaluation of vocational education in the State of Arkansas.

B. As a direct outgrowth of their evaluation a publication was prepared which described various programs, objectives and placed in one document all sources of career education currently available in Arkansas. They distributed the report to every school counselor and vocational educator in the State. This was the first document available to counselors which allowed the availability of programs, description of program content, and addresses of the agency to be contacted—both public and private.

C. The Council has worked actively with the State Board for Vocational Education and the Division of Vocational Education of the Department of Education in preparing the state plan and evaluating the results.

D. They have provided a forum for public discussion and generated considerable public debate on the role, merits, accomplishments, and failures of vocational education in the State of Arkansas.

E. The Council has worked actively with members of the legislature and the Administration in the State of Arkansas for increased funding for vocational education.

F. The work of a very concerned and active Advisory Council and staff has resulted in a significant change in attitude towards vocational education by the general public, school counselors, school administrators, and the Arkansas Legislature. This is evidenced by an upsurge in the demand for vocational education programs by school superintendents, some of whom were previously disinterested, and a large increase in vocational education appropriations by the 1971 General Assembly—$1,125,000 increased to $1,800,000.00.

G. The Council has acted vigorously in support of national legislation designed to improve and expand vocational education and they have been equally vigorous in opposition to legislation which would endanger this vital educational effort.

RECOMMENDATIONS FOR LEGISLATIVE CHANGE

We recommend that Congress continue the step it took in enacting PL 90-576 and informing the public it was "dead serious" about meeting the needs of persons whose preparation for the world of work lies outside the area of college preparation, we recommend:

1. Adequate funding of vocational education rather than token funding when measured in comparison with funds made available for colleges and institutions of higher learning.
2. Forward funding through a procedure that will enable the states to know a full year in advance how much money will be available for vocational education.
3. Establishment of legislative framework that places responsibility for vocational education squarely in the hands of schools (working through state boards for vocational education) rather than divided between state boards for vocational education and special agencies established by Congress from time to time.
4. Increasing the number of hours students can work and amounts of money they can earn under the Vocational Work-Study Program.

CALIFORNIA

State Director—Wesley P. Smith

June 15, 1971.

Hon. Roman C. Pucinski, M.C.,
Chairman, General Subcommittee on Education,
Rayburn House Office Building, Washington, D.C.

Dear Mr. Pucinski: We are grateful for the opportunity you have given to us in commenting upon progress made and problems confronted in the implementation of the Vocational Education Amendments of 1968—and for the opportunity to suggest improvements in the present statutes.

I choose to first comment on one area of concern that applies to each of the three categories of progress, problems, and improvements. I refer to almost endless complications involved in predicting from year to year the levels of funding and the nature of national priorities. Our progress is imperiled and our performance is harmed by the absence of continuing opportunity to plan for more than a few months at a time. The absurdity of this weakness is exemplified in the current situation that finds us about to enter a new school year faced with the unsettled conditions created by the Administration's proposed budget—with its elimination of all special categories and a net reduction of funding—and by the fact that Congress has not yet made its decision regarding funding levels. As stated in prior correspondence to you, our state—and its nearly 1,000 school districts—finds it impossible to perform the full mission assigned by Congress in the face of fluctuating directions that make hazardous any semblance of creative planning.

This is a rather strong indictment, but it is made as a result of many years of cliff-hanging experiences—of wanting so much and working so hard to fully serve the desires of the Congress—only to be frustrated by lack of get-ready time in implementing new legislation and by not knowing levels of funding until months after a fiscal year has begun. I know few influences that would do more to enhance the Vocational Education purposes and performance than a Congressional policy of at least one-year-in-advance funding—and at least one-year-in-advance get-ready time to accommodate changes in directions and priorities.

Although it is my personal belief that a solution to the problem already noted would constitute the most significant breakthrough possible in federal support for vocational education, the rest of my comments will deal briefly with a number of specific areas of P.L. 90-576:

Categorical Provisions

Some will argue that the categorical provisions in P.L. 90-576 should be eliminated in favor of a single, all-encompassing "block grant." Our experience in California refutes this approach. The current arrangement for a "block grant" as provided in Part B of the Act—*plus* the special categories—comprises a workable balance for program development. On the one hand, there is an accommodation of the need for comprehensive program support—and in the other hand there is an accommodation of the need to provide stimulation in emerging priority areas. It may appear to be logical, feasible, and administratively convenient to depend upon all-inclusive grants-in-aid to accomplish all the tasks intended by Congress, but the hard fact is that complete dependence upon "block grants" too often results in an impairment of the breakthrough, innovative, cutting-edge developments so essential in vocational education.

Too, the provision for categorical subdivisions in the Act provides the means for Congress to address head-on priority emphases that are in the national interest. That the categories may change or be modified from time to time should be an accepted practice.

Definitions

Accountability is facilitated in direct proportion to the specificity of prescription in the Act. To further broaden the current definition of vocational education—or its components—will risk the obliteration of prime purposes.

Rather than expand the definition of vocational education to the point that it encompasses the universe, new categories should be employed. For example, if Congress chooses to stimulate the nationwide development of the concept of "Career Education," such thrust should be made through the means of a special category of the Act—not through the means of enlarging the definition of vocational education. In this instance, to do otherwise would be detrimental to *both* Career Education and vocational education.

State Plans

The current specificity in the Act relating to "State Plans," coupled with resulting constraints in federal regulations, appear to have a nullifying effect upon the development of "State Plans" that involve innovative approaches to such documents. Relief from the specificity in Section 123 of P.L. 90-576 should stimulate diversified and promising developments in both format and content of State Plans.

Research

The on-again off-again funding for research in vocational education has not enhanced either the capability of the states in this arena—or major production of beneficial results. Even so, our limited experience in this aspect of funding provisions has convinced us that there are no components in the total program more essential than a capability in research. Too, we are of the opinion that the arrangement for shared roles between and among the states—and the U.S. Office of Education—is both efficient and operable. Again, the missing ingredient has been continuity of funding provisions.

State Advisory Councils

While it may be too soon to assess the influence of State Advisory Councils, the promise remains fertile and their presence acknowledges and gives visibility to the importance of vocational education. The continuation of this monitoring device is essential.

Career Education

The need for educational reform is urgent; the desire for relevancy in education is universal; the concern for definite purpose in education is real; and the anxiety for progress in education is obvious. It is my feeling that Career Education, both as a concept and a vehicle, has the potential of providing learning experiences around which the entire system of public education can unify its collective effort.

In this context, the Congress has an opportunity to take agressive action for the inauguration of a national strategy that will accommodate the current and future needs of both individuals and society for a rational system of public education that incorporates deliberate and persistent attention upon the universal requisite for full citizenship—career selection and career preparation.

Although a feasible inclusion in a Federal vocational education act, Career Education should be allotted separate and discrete attention—and under no circumstances should be considered to be "vocational education"—or intermingled in vocational education. To the contrary, vocational education, as we know it, merely is but one component of Career Education. I feel so strongly about the integrity of *both* Career Education *and* vocational education that I propose that serious attention might well be given to the propriety of a separate federal act for Career Education.

I choose not to recite in this letter statistical evidence of the progress of vocational education in California, for that information is already in the record. Suffice it to say that the influence of both the 1963 and the 1968 vocational education Acts has stimulated all public educational jurisdictions toward productive progress in undreamed proportions. Our potential capability to meet the purpose of the Act is without a peer anywhere in the world. Our commitment to more fully perform the mission allocated by Congress is obvious. Capability and commitment, however, without adequate resources, will not produce the performance we all seek.

Again, we are grateful for this opportunity to share with you some of our needs and convictions. We stand ready to assist you and your colleagues as you study existing legislation and project new legislation.

Respectfully yours,

WESLEY P. SMITH,
State Director of Vocational Education.

COLORADO

State Director—M. G. Linson

Mr. Chairman; members of the committee; I apreciate the opportunity to speak in behalf of the Vocational Amendments of 1968 (P.L. 90-576) and to report on the progress made in the State of Colorado under this Act.

The Amendments of 1968 contributed materially to the fine progress made in Colorado the past few years in maintaining and extending vocational and technical education programs at the secondary, post secondary and adult levels.

The Act motivated and encouraged local and State government agencies to improve and expand vocational-technical programs to meet the training needs of more people in more communities of our State than ever before. Colorado can show many benefits as a result of these Amendments; for example:

Substantially increased vocational enrollments and greatly expanded programs.

New horizons in vocational education—training for new occupations, training of entire new segments of the population, and development of new methods and systems of instruction.

A strong stimulus for greater local and State government support of occupational training.

Research projects to improve the quality of training.

Improvements in staffing, guidance, counseling, and placement.

Improvements in teacher orientation and training.

To be specific about the improvements attributable to the Act, we must examine the component parts:

In the secondary schools of Colorado during 1967-68 there were 135 school districts offering 413 vocational programs, with 26,968 students enrolled. For 1971-72, the Planning and Development Branch of our Vocational Division shows that 164 school districts will provide 849 vocational programs to 41,600 students in the secondary schools of the State. The figures tell their own story of the remarkable growth made during that span of time. The financial effort of the State and local units, stimulated by increased federal funds, has made this growth possible.

The post secondary programs, offered largely at community/junior colleges and area vocational schools in the State, have likewise shown remarkable growth. In 1967-68, 12 of the post secondary institutions offered 238 vocational programs, with 7,445 students enrolled. The 1971-72 data indicate 18 schools will provide 526 programs, with an anticipated enrollment of 18,079 students. This growth, in addition to the Vocational Act support, has resulted from the encouragement and support of a dedicated Colorado State Board for Vocational Education, assisted by the local and State government units.

The growth in sheer numbers is commendable, but the expansion into new and emerging occupations—environmental control, health occupations, public service programs, and others—as a part of the total growth in numbers, speaks as eloquently for the expansion education in Colorado.

With eight newly designated area vocational schools during the past three years, the total was brought to 13, which greatly increases the opportunities for training at the post secondary level. The area schools also made it possible for students from adjacent high schools to receive vocational training. Fifty-four high schools benefited from the arrangement this year.

Adult vocational enrollments actually show a decline—from 47,368 in 1967–68 to 43,030 for 1971–72, but this decline results from a change in reporting methods. There has been no actual decrease. A great many persons who formerly were enrolled in adult programs, and were listed as such, now take courses at community-junior colleges and area vocational schools and are listed as post secondary enrollments rather than in the adult column.

The total number of persons enrolled in regular vocational training at secondary, post secondary and adult levels in 1967–68 was 81,781; whereas 1971–72 indicates an enrollment of 102,709 persons, for more than a 25 percent increase in that brief span of time. When the number of students enrolled in Disadvantaged, Handicapped and Cooperative G vocational programs is included in the total, the increase is more than 28 percent for the same period of time. These programs will be reviewed separately, as follows:

The persons receiving training under the Disadvantaged segment of the Act have increased from 770 in 1967–68 to an anticipated 1,775 in 81 programs in 1971–72. The need to continue and expand such programs is indisputable in meeting the social and economic needs of these people, as well as continued economic development of the State of Colorado. Programs for the disadvantaged, although concentrated in the metropolitan area, have also been extended into rural areas of the State. Vocational programs offered at the Emily Griffith Opportunity School, Metro Youth Center, and Community College of Denver provide an opportunity for many disadvantaged persons to become productive citizens in an urban setting where they are now rejected.

Vocational programs in economically depressed areas of the southern part of the State have likewise provided opportunity for young adults to have that second chance to learn a skill and become self-sustaining citizens.

Students in secondary and post secondary schools throughout the State have been able to complete vocational programs at the rate of more than 1,000 annually, made possible by the funds from the Act for disadvantaged persons.

Specialized types of teacher training for those persons working with the disadvantaged became a reality under the Act. Summer programs, seminars and workshops held each year have increased the understanding and quality of vocational programs offered to disadvantaged persons. Even with these additional offerings, there is much still to be done in retraining teachers to work with these groups.

The funds available under the Act for vocational programs for handicapped persons have produced several significant developments. The number of persons in training increased from 1,015 in 1967–68 to an expected 2,167 in 62 programs in 1971–72. The quality of programs was upgraded by workshops and seminars for instructors, as well as additional materials and instructional equipment. One other development has been the very fine cooperation of the Vocational Rehabilitation Department and the Special Education Section of the State Department of Education in providing, along with our Vocational Division, programs of work experience for many more handicapped persons. Vocational programs such as one in Vocational Office Education offered for the hard-of-hearing and deaf by the Community College of Denver have received national recognition. This particular program has expanded into an Interpreter-Tutor program for students with impaired hearing who are enrolled in other vocational programs.

The Research funds in the Act, available under the allotment to the State, along with local and State funds, have made possible a continuing Research Coordinating Unit in our Vocational Division. This Unit, although small in staffing, has encouraged and funded research projects in vocational areas in cooperation with local schools, colleges and universities. The key effort and determination of vocational research in our State has focused on action or usable projects which are practical and lead to change or improvement in vocational-technical education. I would cite as examples of such projects the development of a testing program for licensed practical nurses to ascertain their entry into and level of placement for study to become a technical or registered nurse. Another is the development of a statewide follow-up system for al vocational students at one-, three-, and five-year intervals to determine needed and useful vocational training. Still another research project concerns the use of and needed trainees in the minicomputer field. Attitudinal studies of school districts are being made to determine the image of vocational education and find means of improving it. A Health Occupations survey of the State is underway.

Other projects could be mentioned, but these five demonstrate the purpose of the research work done in the State. I would like to stress the importance of continuing at least 50 percent of Research funds to the states for their own use in connection with state and local funds, as is done at present.

A few Exemplary programs have been implemented in the State, particularly in World of Work programs at the elementary and junior high levels, but the extent has been limited because of limited funds. Through the combination of Exemplary and Disadvantaged funds, an outstanding program of prevocational and vocational training was started for underachievers and potential dropouts at Pueblo, Colorado.

Under the Cooperative G portion of the Act, 27 programs have been established in the State which otherwise probably would not have become operative. Emphasis for placement of these programs has been where there is a high percentage of youth unemployment and in areas that are economically depressed.

The Consumer and Homemaking programs—more than 450 in number in the State—have been strengthened by the Vocational Act. Particular attention should be given to the portion being used in Model

Cities and economically depressed areas. The training offered to approximately 8000 women has resulted in tangible improvements in the management of the family budget, better nutrition in foods served, and wiser use of food dollars. In addition, I would like to mention the training programs for women in sewing projects which led to direct employment and met the demands of a ski-wear manufacturer in the San Luis Valley area of the State.

The Work Study Section, Part H, of the Act has been utilized to the fullest in our State. The General Assembly has cooperated by appropriating the 20 percent matching funds. Over 400 students are participating in the program this year. We would urge that this portion of the Act be continued and expanded. The hundreds of success stories which could be written about the results of the Work Study Program are too frequently unrecorded, but this success is attested by the number of students who complete vocational training because of it.

Other segments of the Vocational Act which are necessary for full implementation of the vocational-technical education programs in the State should be mentioned. The administrative staff of the State Vocational Division must be kept at full complement, with outstanding vocational leaders, if it is to be effective. The Act has greatly assisted in making such staff possible.

The Vocational Guidance thrust in the State, through an assist from State funds, has resulted in Guidance personnel and Job Development and Placement personnel being on the campuses of all post secondary schools in Colorado, as well as in a few large city schools. By working closely with representatives of the State Employment Service, fine progress has been made in many areas.

The training of vocational teachers to meet the ever-increasing demand has been helped by the Act. A second institution in Colorado has been designated for vocational teacher training, and a large increase in off-campus vocational course offered throughout the State has proven most helpful for both preservice and inservice training programs. Part F of Title II of the Act, which provides for training and development of vocational personnel, if fully funded, would add appreciably to vocational teacher training programs in Colorado.

The State Vocational Advisory Council in Colorado has worked closely with the Vocational Division for the mutual benefit of all concerned. Although the benefits have been great in number, I would like to mention three specifically:

> The Council has helped improve the image of vocational-technical education with the public at large and the State Legislators in particular. The result has been greater consideration for funding of vocational-technical education by the General Assembly.
>
> Secondly, the Council, with the Vocational Division, has contracted for studies in various training areas, such as one on Electronics and Machine Trade Occupations, which have given foresight for planning and operating vocational-technical programs.
>
> The third effort has been to implement a statewide evaluation system of vocational education, operated this year on a sampling basis of secondary school programs and all of the post secondary schools. The Education System was planned and implemented as

cooperative effort with the Vocational Center of Ohio State University. The plans are that next year this evaluation system will cover all schools in the State which operate vocational-technical programs.

The State Advisory Council in Colorado is a vital and integral part of the vocational-technical education program.

The foreging has been an attempt to give a small insight into the many areas which the Vocational Amendments of 1968 (P.L. 90–576) have touched upon and had an effect. The Act has provided an excellent base upon which many training programs have been founded.

In summary, the Vocational Amendments have materially benefitted vocational education in Colorado, as indicated by greater enrollments, expanded programs, new occupational training areas, new groups of students, and new methods; by stimulating greater support from the local and State echelons of government; and by a great many research and professional improvement developments which upgrade the quality of occupational training in our State.

The following observations and recommendations are made for the Committee's consideration:

1. We urge that the Vocational Amendments of 1968 (P.L. 90–576) be continued on a permanent and continuing basis for the authorization of funds. Such authorization enables the local education agencies and the states to do long-range planning. In addition, it encourages states to plan and fund vocational-technical programs in a sequential, stabilized manner.

2. We request extension of authorization of those parts of the Act (P.L. 90–576) which are expiring; namely, Section 102(b)—Disadvantaged funds, Part D—Exemplary Programs, Part E—Residential Facilities, Part G—Cooperative Programs, Part H—Work Study, and Part I—Curriculum.

3. Full funding of the authorized amounts in the Act (P.L. 90–576) should be reached as soon as possible in order to meet the states' needs in vocational-technical education.

4. Provide for the creation of an administrative framework and accountability for vocational education at the federal level in this Act or in other legislation. The national leadership and accountability role for vocational education has declined the past few years, although much legislation to expand and improve vocational programs has been enacted. To assure continued growth and development in vocational-technical education in our State and in the nation, it is essential that the federal level administration be solidified and not splintered into other agencies.

5. One of the historical strengths of vocational education in the United States has been the designation of one State Vocational Board in each state to receive and disburse all vocational funds. All federal legislation should be planned to maintain this method of operation.

6. Another strength has been the partnership of sharing plan whereby the local, state, and Federal governments participate in planning and financing vocational education. With each entity feeling a financial responsibility and obligation, growth and progress have been made in vocational education.

7. The matching of Part B funds in the Act (P.L. 90-576) on a statewide basis has proven most satisfactory and should be continued.

8. The Act (P.L. 90-576) has been, and should continue to be, the vehicle for career education programs. Other legislation at the state and federal levels may and should be designed to work in conjunction with the Vocational Act, but not to operate as separate units, if the manpower goals of the nation are to be reached.

9. The provisions of Title III, providing for adequate leadtime, planning and evaluation, are very important to our State. It is our hope that progress can be made on this item.

Thank you for the opportunity to give this brief report on vocational-technical education in the State of Colorado, and to make suggestions for improvements.

CONNECTICUT

State Director—Joseph F. Murphy

STATEMENT OF JOSEPH F. MURPHY, ASSOCIATE COMMISSIONER OF EDUCATION AND DIRECTOR, DIVISION OF VOCATIONAL EDUCATION, CONNECTICUT STATE DEPARTMENT OF EDUCATION

Mr. Chairman and members of the sub-committee, I appreciate the opportunity to testify on the progress made in vocational education in Connecticut and to offer a few suggestions for improvement of the law and its administration.

The Vocational Education Amendments of 1968 have enabled the State of Connecticut to achieve many worthwhile goals. As a result of increased funding, new and improved programs serving a greater variety of students have been developed. Some of the areas in which there has been significant growth are identified below:

Post secondary

Though the State of Connecticut has provided considerable support to its four state technical colleges and eight state community colleges, the availability of Federal funds for occupational programs has made it possible to expand these programs and to establish a requirement of student placement for all occupational programs. The latter requirement on all vocational programs funded by the state has made occupational programs more meaningful and more closely related to manpower needs. The occupational education enrollment in post secondary programs has increased by 143 per cent from 1968 to 1970.

Disadvantaged

The emphasis on serving disadvantaged youth and adults has been sorely needed. Despite the vagueness of definitions, through the funds available under this Act, 976 per cent more disadvantaged students were enrolled in vocational programs for the period from 1968 to 1970.

The additional funds made available for 1971 under section 102(b) of the Vocational Education Amendments of 1968 should provide for greater expansion of the programs for disadvantaged.

Handicapped

In 1968, no funds and no enrollments were reported under the category of Handicapped. In 1970, programs were developed to the extent that 607 handicapped students were enrolled in occupational programs. The late approval of funds made it impossible to develop more programs in this year; however, a large increase is expected in Fiscal 1971. The flexibility provided under the Act in reference to contracting procedures made it possible to provide funds to sheltered workshops, Goodwill Industries, and other vocational rehabilitation centers.

Research

The funding of research has been on a "hot and cold" basis. When specific grants for the establishment and operation of Research Coordinating Units were provided, many studies dealing with manpower needs, extensive graduate follow-up, characteristics of new employees and job requirements as well as studies of admission requirements and problems of early school leavers were made.

A dearth of research funds and the necessity of compiling extensive statistical data for State Plan purposes tended to reduce the activities in research. However, with recent increases in research funding, it is hoped that new studies of characteristics of vocational students, long-range follow-up of graduates of vocational-agriculture programs, developmental career orientation programs and other applied studies may be instituted.

Reimbursement changes

A funding support program has been developed under the 1968 Amendments to Vocational Education Act of 1963 which provides greater support and gives priority to programs serving disadvantaged or handicapped as well as greater support to local school districts according to need. A Community Need Factor considers and weighs the tax wealth, number of school dropouts, number of youth unemployed, unemployment rate and the number of children on Aid for Dependent Children. The composite score of the above factors for each school district will determine the percentage of funding of the excess costs for programs in these school districts and will also be used to identify depressed and priority areas of support.

In addition to the Community Need Factor, each program shall be rated according to its quality, degree to which it serves disadvantaged or handicapped, immediate manpower need, long range manpower need, extent of preparation for post secondary program, and the newness or recency of this program.

The combination of the Community Need Factor and the Program Priority has effectively increased the amount of support to large cities as well as to specific programs which serve disadvantaged or handicapped people.

State advisory council contribution

The State Advisory Council has recommended greater support be provided for vocational guidance and career orientation programs. It has also recommended that all teachers be required to take a course in vocational education or in the "world of work." They have also recommended that focus be placed on the disadvantaged. All these recommendations have been beneficial in enabling the State Department of Education to move in this direction.

Career orientation and vocational guidance

Through funds made available under Part D—Exemplary Programs and Projects, pilot programs in career orientation are presently being conducted. These programs, ranging from the third grade through high school, provide students with field and shop experiences for exploration as well as individual assessment in order to enable students to make better career choices.

Funds from Part A of the Vocational Education Act have been used to support vocational guidance counselors at the high school level who work with non-college youth providing information concerning vocational education and apprentice opportunities as well as offering a job placement service. At the middle and junior high level, these counselors develop career orientation programs to provide students with the knowledge of the world of work and their own individual characteristics.

Problems existing under the current vocational act

The rigidity of the present Act and the attempt to restrict the states to a fixed pattern, handicaps the growth of vocational education.

The set-asides and the separate categories do not enable a state to use vocational funds according to the varying needs of the individual states. For instance, the availability of funds for cooperative vocational education may be of limited value when jobs are scarce. It might be preferable to use these funds for institutional programs. It is conceivable that in some states the support provided for the handicapped or the post-secondary programs through state and local funds is at a level so that the mandatory requirement of utilization of Federal funds may not result in the best utilization of funds and greatest benefit to students.

In view of the problem of receiving late notification of the availability of Federal funds and the late receipt of grant awards, it is impossible to properly plan for the best use of these funds. In the same way, the receipt of reporting forms mid-year or at the close of a year to be applied for the current year or in the following year does not provide time for the setting up of a proper system of data collection.

The State Plan with its minutia does not properly function as a planning instrument. A great deal of time is spent on the rewriting of this document according to rigid regulations. This time would be better spent in planning than in filling in the requested statistical data. Five-year projections are impressive sounding projections but of limited value in the changing social and economic picture.

Better definitions are needed of the disadvantaged and the prepostsecondary programs.

CONNECTICUT STATE DEPARTMENT OF EDUCATION—A COMPARISON OF VOCATIONAL PROGRAMS FOR THE YEARS OF 1965, 1968, AND 1970

Program	Date	Total money	State money	Local money	Federal money	Percent increased enrollment 1968–70	Enrollment
Postsecondary	1968	2, 184, 831	1, 736, 544		448, 286		5, 220
Disadvantaged	1968	416, 372	40, 038	287, 849	88, 484		1, 271
Handicapped	1968						
Research	1968	31, 048					
Secondary	1968	8, 319, 512	3, 595, 074	3, 311, 817	1, 412, 620		45, 734
Postsecondary	1970	4, 153, 900	3, 825, 847		328, 053	143	7, 462
Disadvantaged	1970	2, 142, 696	17, 545	1, 679, 615	445, 536	976	12, 407
Handicapped	1970	66, 153		2, 202	63, 951		607
Research	1970	55, 129					
Secondary	1970	10, 459, 157	3, 380, 786	6, 054, 416	1, 023, 955	123	56, 237
Postsecondary	1965	1, 226, 189	661, 457		564, 732		2, 031
Disadvantaged	1965	3, 618	1, 809		1, 809		5
Handicapped	1965						
Research	1965						
Secondary	1965	3, 568, 620	2, 606, 344	126, 375	835, 900		14, 617

Manpower Training Programs

There are several suggestions for improving the Federal law and administration of Manpower training programs.

The present procedure of funding through the Department of Labor to Health, Education and Welfare to state education agencies is slow and cumbersome. I suggest that money be appropriated to HEW directly, who in turn might allocate up to 50 per cent of the funds of the states' training alloment during the first quarter. As projects are developed, funds could be replaced by HEW in this pool and the interim money would be available to start training. Such a method of funding could help minimize or eliminate duplication and overlapping of programs. This would be subject to HEW audit to insure compliance with Federal regulations.

Federal directives indicate how monies are to be spent, based on national data which does not always fit the needs of a particular state or area within the state. It is suggested that states should have the authority to mix the OJT allotments and institutional funds according to the Manpower needs within the state.

MDTA Funds have a two-year life. However, projects cannot be modified according to needs after a nine-month interval without prior approval from Washington. This frequently results in long delays. It is suggested that the state should have the authority to modify and change projects during the life of the fiscal allocation according to Manpower needs. This would provide flexibility so often sought.

Statute and regulations indicate that priority should be given to skill centers. Some agencies ignore these Federal directives. It is suggested that wherever Federal funds are used for training purposes, agencies should be required to show in writing that a skill center could not or would not assist them. It is suggested that a skill centers should be funded for more than a one-year period to provide greater continuity and flexibility necessary to maintain quality and adequate staffing.

DELAWARE

State Director—Daniel E. Koble

I appreciate this opportunity to supply information in support of the Vocational Education Act of 1963 and the Vocational Education Amendment of 1968 and to make the members of this committee aware of the impact that the amendments have had on the vocational programs in the State of Delaware.

If I may, I would like to preface my remarks with a statement from an article titled "A Call for Total Commitment" by Howard Day, president of the California State Board of Education, that appeared in the AVA Journal, October 1970. To quote Mr. Day, "At periodic intervals, every organization must incorporate in its planning an assessment of itself to determine if its plans, operations, and actions are on target. The educational enterprise is certainly no exception. We must realize that we are living in a changing world—a world in which many of the requirements of today will be obsolete tomorrow. We must anticipate the requirements of the future and be prepared to meet them. One such change, both fundemental and undeniable, is the imperative need to substantially strengthen the purpose of education in order that vocational or occupational education is both accorded and assigned priority status."

In Delaware, Governor Peterson and State superintendent of education, Dr. Kenneth C. Madden, have made it known on several occasions that their commitment is to vocational education. Governor Peterson's goal is to see that every student leaving the secondary schools has a job or has been admitted to an institution for further study. With the commitment of State and Federal monies,—Federal monies made available by the Vocational Amendments Act of 1968, Delaware is making real strides towards achieving this goal. Secondary enrollment in vocational education has increased from 17,323 in 1967 to 46,039 in 1970, an increase of approximately 288%. During the same period of time, adult vocational education has increased from 2,049 to 4,708 approximately 100%. In 1967, Delaware spent a total of $3,697,000 for vocational education, of this amount $605,000 was Federal and $3,092,000 State and local. In 1970–71 a total of $5,168,220 was spent, $1,150,265 Federal and $3,982,955 State and local. This amounts to an investment of better than three to one by the State of Delaware.

What kinds of programs has this money made possible? Since 1968 office and business occupations has doubled in enrollment. Distributive education has more than doubled. In 1968, programs for persons with special needs were serving 341 students, in 1970 this figure has increased to 918 in special needs and 4,585 disadvantaged.

I would like to give you an idea of the nature of some of the special needs programs:

A pilot program for custodial training was developed for mentally retarded.

A special project to reduce drop-outs by providing a curriculum involving a cooperative work-study and an exploratory work-study program to fit the needs of the non-academic student is operating at the junior high school level.

A correctional school for girls offers courses in home economics, including vocational courses to train girls in the areas of food service, clothing and dry cleaning.

Specialized summer programs are offered in the area of business and office occupations and distributive education for vocational students needing help in developing their skills and abilities

Adult classes in home economics and family living are offered for low income families.

Special program in distributive education trained 600 persons in cashiering, check out procedures, package wrapping, stock control and supervisory services.

A building and grounds education program is offered to low achievers and potential early-school-leavers.

A program to reach ghetto youths and dropouts was developed in distributive education in cooperation with the Thom McAn Company, this is the 70,001 program.

Twenty-two of the twenty-six local school districts are conducting cooperative work experience programs, giving the students a chance to earn while they learn.

Automotive and building maintenance programs are now operating at Ferris School for Boys, a correctional institution.

In postsecondary education:

Adult practical nursing courses are offered at locations in each county training approximately 100 persons a year.

Delaware Technical & Community College established in 1967–68 is operating an evening school program with an enrollment of approximately 2,000 students at two locations in the State. These classes are for persons already in the labor market wishing to up-grade themselves.

Delaware State College now offers a program in distributive education teacher training leading to a degree in education.

A comprehensive manpower survey has been made in the northern county, New Castle, and is planned for the rest of the State in the near future. The results will be most valuable in facilities and program planning for vocational education in the State.

Special grants from the Commissioner have been received for two programs in Delaware. A program to develop an occupational-vocational education model for the state of Delaware has received a grant of approximately $309,000 to be pro-rated over the next 3 years. The other program to develop and implement a comprehensive testing program for a vocational-technical center has been funded for $113,586 over a three year period. Both of these programs are just concluding their first half year of operation and we are watching them with keen interest and high expectations.

Perhaps one of the most uniquely different programs funded in Delaware is the "Mobile Counseling Center" operated by the Delaware

Technical and Community College. This center consists of a trailer equipped as a counseling suite. It is staffed by a counselor and four aides. The center moves about the city of Wilmington locating on school properties for varying periods of time. The purpose is to counsel adults in all matters, but primarily in methods of furthering their education whether it be adult basic education, learning to speak English (center has a Spanish speaking aide) or how to get back into college. In submitting a request for funding the second year of operation, the following quotes from counselees were presented:

> This is the greatest thing the schools have ever done—should have been started years ago.
>
> These people take a real interest in you.
>
> We didn't know we could go back to school.

The programs cited here and many more have been made possible through the Vocational Education Act of 1968. If the amendments are not renewed many of these programs will be forced to cease operation. Any cutback in funding will seriously curtail programs, not only in Delaware, but in all the States and territories.

It is my understanding that the budget proposed for 1972 will represent a decrease in vocational education funds for the State of Delaware in the amount of $296,506.

In the past two years, we have been unable to fund approximately $500,000 worth of badly needed vocational programs in the State of Delaware because of insufficient funds. I do not believe it is necessary to tell you what a blow it will be to vocational education programs, and the students enrolled, if the $296,506 reduction in funds predicted for 1972 becomes a reality.

I would like to explain how the Federal vocational funds awarded to the State of Delaware are granted to school districts and other eligible educational institutes. The basis for selection is established in the State plan for vocational education. Primary emphasis has been in the areas of the disadvantaged, handicapped and special needs along with the strengthening and expansion of on-going programs in secondary, postsecondary and adult vocational education leading to a large increase in all of these programs as stated earlier.

Selection of programs for funding is done through the use of program proposals submitted by the applying organizations. These proposals provide a statement of needs, the target area to be served, the objectives that are to be obtained and the amount of local effort to be involved. The professionals are reviewed by the State vocational education staff and recommended to the State board of vocational education for final approval.

One of the biggest problems encountered in operating programs involving the use of Federal funds, I am sure you are all well aware of it, is the unavailability of these funds until late in the fiscal year. In Delaware a program involving Federal funds cannot be started until the Federal funds are made available to the District unless the District has funds available which they are willing to commit with the promise that they will be replaced when Federal funds become available. Even with the possibility of working with a continuing resolution it is difficult to budget the funds on a yearly basis. Whether the amendments of 1968 are renewed or some other method of providing categorical funds for vocational education is established, it is imperative that serious consideration be given towards correcting this problem. If year in advance funding could be established, States could commit the funds and local education agencies would then be able to plan well in advance for the operation of programs.

We would like to state categorically that vocational education, on all levels, should be a function of public education and should continue to be a function of the U.S. Office of Education with sufficient staffing to administer the program at the national level. At the State level, the program should continue under the administration of the State Board for Vocational Education and be directed and supervised through the State Department of Education.

DISTRICT OF COLUMBIA

State Director—Harold A. Clark

Public Schools of the District of Columbia

DEPARTMENT OF VOCATIONAL EDUCATION, WASHINGTON, D.C.

Research

The 1970 State Plan for Vocational Education in the District of Columbia provided for the establishment of a Research Coordinating Unit with a position of Research Assistant for the prime purpose of engaging in research activities specifically related to vocational education. Initial funds were made available to the unit in March 1970. A research assistant to fill the State Plan position joined the staff in April 1970 and has subsequently observed other vocational instructional programs in the country and attended two Short-Term Vocational Education Multiple Institutes for Metropolitan Areas. The research assistant has participated in meetings and conferences on vocational education for the purpose of gathering information and data which has been useful to the successful operation of programs and activities.

The Research Unit is an integral part of the Division of Research, Public Schools of the District of Columbia. The Division has been acquiring materials in its Research Information Center which are useful for research and development activities in vocational education; recent acquisitions include subscriptions to AIM and ARM, and the Manpower microfishe collection. The Center's other holdings include the indexes and microfishe for the following collection:

> Pacesetters, Disadvantaged, Higher Education, U.S. Office of Education Cummulative, and RIE. The RIE abstracts have been computerized (Quarry System) and provides 48 hour service in response to request for listings in a particular subject area.

The research assistant aids the Vocational Education Department Staff in preparing the State Plan, reports and developing specifications for the evaluation of the vocational education program.

Occupational awareness and the problem of providing vocational education for the disadvantaged, pre-vocational, secondary, and adult populations are being investigated in order to develop proposals for research and exemplary programs to assist in more adequately assessing and meeting the needs in these areas.

In September 1970, the Department of Vocational Education contracted with American Vocational Research Corporation to make a comprehensive evaluation of vocational administration, programs, and needs in the District of Columbia. Evaluation activities have been coordinated by the Division in the design of contract specifications, in-house data collection, and general supervision of production. The contracted evaluation period will terminate June 30, 1971, and will provide documents pertaining to the evaluation of Department activities and an assessment of manpower needs in the District and Metropolitan Area over the next five years.

POST-SECONDARY EDUCATION

Substantial progress has been realized in the area of post-secondary vocational education primarily because of additional funds which were provided under the Vocational Education Amendments of 1968.

During the school year 1969–1970 there were 1,059 students enrolled in post-secondary programs at the Armstrong Adult Education Center, M. M. Washington and Burdick Vocational High Schools, and in almost all of the hospitals in the District of Columbia. This enrollment represents a tremendous increase over any previous enrollment in post-secondary education.

Post-secondary programs are offered in trade-industrial and health occupations. The greatest increase in programs is in health occupations although there has been continual growth in trade-industrial programs. Health occupations programs include Practical Nursing, Medical Laboratory Assistant, Dental Assistant, Surgical Technician, Hospital Food Supervisor, and Nurse Assistant.

In 1969 twenty-eight (28) teachers worked in post-secondary programs. Thirty-seven (37) teachers are currently employed. Total allocation in 1969 was $276,282 and total allocation for 1971 $414,107.

EDUCATION FOR THE HANDICAPPED AND THE DISADVANTAGED

Through the cooperative efforts of an advisory committee composed of representatives of the community and D.C. School personnel, three new programs for the handicapped were planned and implemented at Sharpe Health School during the school year, 1969–1970. The programs are Electricity-Electronics, Graphic Arts, and Home Decorating. The shop/laboratories which include modern, specialized equipment and materials are housed in a new addition to the building. The total enrollment in the three programs is approximately 45 students. The primary purpose of the programs is to provide skill training that will prepare students with physical handicaps for gainful employment.

A program in Building Care and Maintenance for handicapped boys was established by the Department of Vocational Education, D.C. Public Schools, at the District of Columbia Children Center, Laurel, Maryland in March 1971. There are fourteen (14) secondary age boys with mental handicaps enrolled. The purpose of the program is to provide adequate training for these boys to become gainfully employed, self-supporting citizens of the community. The program is scheduled to run for at least twelve months. Initial placement of trainees in jobs throughout the community will begin in January 1972. The center plans to conduct a follow-up study of the job success of the graduates.

Plans have been completed for implementing a pre-vocational education program for trainable mentally retarded students at the Pierce Center for the Handicapped. The program is designed to promote wage earning rather than wage dependency through a series of experiences provided within a program of educational and vocational development. The program includes a vocational shop/laboratory that will offer activities and experiences related to manufacturing and construction occupations. Training will be given in the areas of distributive education and consumer and home economics.

All vocational programs in the Public Schools served disadvantaged students; therefore, the development and progress of vocational education since 1968 have been of benefit to the disadvantaged as well as to other segments of the population. Worthy of note however, are three programs which were established for youth with very special problems. No. 1, The pre-vocational program for students enrolled in the M.I.N.D. (Meeting Individuals Needs Daily) program provides prevocational experiences for a selected group of junior high school students who are classified as under achievers and potential school drop-outs. These students are given the opportunity to explore several occupational training areas in the vocational high schools and the D.C. Public School Skill Center. No. 2, A Reading Improvement Program in Vocational High Schools is a program of remediation in basic reading to improve basic reading skills.

The underlying philosophy upon which the program is based emphasizes the fact that improving reading skills in the secondary schools is a function of the coordinated efforts of all teachers—academic and shop. In view of this fact, every effort is made to involve the entire staff in the total reading improvement effort by identifying and providing for the needs of teachers in helping students to overcome reading deficiencies. No. 3, The salaries are provided for three teachers who are assigned to the General Educational Development (GED) Program at Project Build, Inc.:

> Project Build is a nonprofit training institution sponsored by the Greater Washington Central Labor Council, AFL–CIO, in cooperation with Washington Building and Construction Trades Council, AFL–CIO. It is located at First Street, N.E. Washington, D.C.

The primary objective of Project is to train and upgrade the hard-core unemployed youth, many of which are high school dropouts, to meet the qualifying requirements for entry into apprenticeship programs in building and construction trades. Approximately 280 disadvantaged youth have been served during the period this department has been participating in the project.

Rapid growth and expansion have been made in programs for the disadvantaged in the area of consumer and home economics. Adult home economics to meet special needs of the people have been carried to adults through various community organizations.

Through a mutual cooperative effort between the Department of Home Economics and the Division of Community Organizations and Social Services, National Capital Housing Authority community classes have been established for public housing tenants. There are 19 community programs serving the needs of adults.

METHODS OF INTRA-STATE DISTRIBUTION OF FUNDS

Even through the administration of vocational education in the District of Columbia serves a dual function, State and Local, the methods of distributing funds are similar to methods used by many local school districts within the States.

Vocational Education in the District of Columbia is administered through five (5) area vocational high schools, several of the eleven academic high schools, and through cooperative arrangements with business, industry and human services institutions. Programs are offered to all citizens of the District of Columbia by levels of educational development; secondary, post-secondary, and adult. Funds are alocated for the support of programs by the Assistant Superintendent of Vocational Education as representative of the State Board of Vocational Education (Board of Education, Public Schools of the District of Columbia). Salaries for staff, allocations for the cost and maintenance of equipment, cost of supplies, and other services are appropriated on an individual program basis. Prime factors that are considered in funding programs are the needs and types of person to be served.

CONTRIBUTIONS OF THE STATE ADVISORY COUNCIL

The District of Columbia Advisory Council On Vocational Education has played a leading role in fostering vocational education. The following descriptions of activities reflect the contributions of the Council in 1970–1971:

I

Met monthly, in turn, at each vocational high school and the Adult Education Center, with the following agenda emphases:

(*a*) Definition of the current program with presenters from the staff of the offices of the Superintendent of Schools and the State Director of Vocational Education.

(*b*) Study of the Vocational Education Acts.

(*c*) Study of the *Report of the Task Force on Career Development.*

(*c*) Consideration of and action on the State Plan for FY 1971.

(*e*) Formulation of a philosophy of human-resources development for public education.

(*f*) Identification of problems facing the development of adequate vocational education services in the D.C. Public Schools.

II

Participated in the Public Hearing on Vocational Education sponsored by the District of Columbia Board of Education, August 18, 1969.

III

Co-sponsored a Conference on Career Development, February 6–7, 1970 with the Metropolitan Educational Council for Staff Development, and the Area Manpower Institutes for Development of Staff of the Washington Technical Institute. The more than one hundred participants in the conference broadly represented the Washington community as follows: parents; business officials; government officials; students, teachers, and officers in the school system; and representatives from the area institutions of higher learning. Seven members of the Board of Education participated in the conference. The conference provided an opportunity to look at the need for a new concept of career-oriented educational programs in the District Schools generally. The objectives of education toward career aspirations and needs of students, in terms of changing professional and technological patterns, was strongly endorsed.

IV

The Council endorsed the Career Development Program developed by a task force of the School System. Letters were written to members of the House of Representatives and the City Council indicating their support of the Program and endorsing the request of the D.C. Board of Education for $500,000 to plan for the development of appropriate Career Development Centers for the Washington Public Schools.

V

On May 5, 1970, the D.C. Advisory Council held a public meeting in the District Building to invite public testimony on plans and programs for improving vocational education services.

(*a*) Prior to this meeting, a copy of the Task Force Report on a Plan for Career Development, copies of the First and Second Annual Reports of the National Advisory Council on Vocational Education, and other materials were sent to the more than 300 community organizations and agencies invited to participate in the hearing.

VI

The District of Columbia Board of Education and the D.C. Advisory Council held a formal meeting on May 12, 1970, to discuss their concerns and plans for Vocational Education in the District of Columbia.

VII

The Council was represented at a meeting of the Committee on Vocational Training of the Mayor's Task Force on Construction Problems in the District of Columbia.

VIII

On June 19–21, 1970, the District of Columbia Advisory Council, in cooperation with the Department of Vocational Education in the District Schools, sponsored a Seminar on the Public School Vocational Education Program for Council members, school personnel, and representatives of community organizations.

IX

All vocational high schools were visited and inspected by members of the Council.

X

Members of this Council have further expressed their serious concerns and interests in the youth and vocational education in the District of Columbia by involving themselves (jointly and individually) with the community in many activities, some of which are described below:

(*a*) Luncheon meetings with business groups in the District sponsored by two Council members, to stimulate their concern and their input.

(*b*) Assistance in acquiring photosetter machines for Bell, Phelps, and the newly designated Skill Center.

(*c*) Council representation on the following boards and committees:

Drug Committee of the Health & Welfare Council of the District.
Vocational Education Committee of the Mayor's Task Force on Construction Problems.
The Washington Technical Institute Advisory Committee for Apprenticeship Teacher Training.
National Joint Carpentry Apprenticeship Committee.
Task Force on Vocational Education-Industrial Arts Curriculum Project instituted for the District of Columbia.
District of Columbia Board of Library Trustees.
District of Columbia Advisory Committee of the Department of Corrections.
Board of Trustees, Washington Technical Institute.
Metropolitan Washington Board of Trade.
National Advisory Council on Vocational Education.
Department of HEW/OE, Vocational Education-Construction Industry Conference, Steering Committee.

INNOVATIVE IDEAS ON CAREER EDUCATION

A Plan for Career Development in the Public Schools of the District of Columbia, a task force report on a plan for career education that is currently being implemented in the public school, encompasses innovative ideas in career education. The following statements summarize this office's views on career education:

(1) Career Development must be an integral part of a relevant program of education at all levels of instruction.

(2) Career Development must focus upon expanding an awareness of the range of present and future opportunities, upon the development of marketable skills and upon stimulating a positive personal response to the challenge and rewards of the world of work based upon a sense of dignity of all work.

(3) Career Development must be the cooperative responsibility of all instructional units, with curriculum, guidance and counseling activities closely coordinated.

(4) Career Development must be offered in a variety of flexible patterns to serve realistically the needs and aspirations of individual students:

(*a*) All students must be encouraged and assisted to continue their formal education at least through high school, in conjunction with part-time or full-time employment where desired.

(*b*) All students must be encouraged to develop a marketable skill prior to leaving school.

(c) All students must be prepared for continuing education to expand their level of post secondary competence and to meet new career requirements resulting from technological changes, and must be stimulated to continue their career development in joint union and employer apprenticeship and special training programs, technical schools, colleges and other institutions of specialized education after high school.

FLORIDA

State Director—Carl W. Proehl

THE IMPACT OF RECENT FEDERAL LEGISLATION ON FLORIDA'S PROGRAM OF VOCATIONAL-TECHNICAL EDUCATION, JUNE 14, 1971

(Floyd T. Christian, Commissioner of Education, Department of Education, Tallahassee, Fla.)

INTRODUCTION

The following manuscript was prepared by the Division of Vocational, Technical and Adult Education, at the request of Congressman Roman C. Pucinski, Chairman of the General Subcommittee on Education, to be used in the evaluation of the impact of recent Federal legislation on vocational education in Florida.

In addition to a review of the impact, recommendations for improvement in Federal legislation are also made to highlight areas of concern needing attention. These appear in the manuscript without consideration of priority in relative importance.

I feel this information will be useful to persons having responsibilities or concerns for the improvement of vocational education programs in Florida.

CARL W. PROEHL,
Director, Division of Vocational,
Technical and Adult Education.

THE IMPACT OF RECENT FEDERAL LEGISLATION ON FLORIDA'S PROGRAM OF VOCATIONAL-TECHNICAL EDUCATION

This paper reviews highlights of Florida's progress in expanding and strengthening vocational education in recent years. Substantial gains were recorded after passage of the Morse-Perkins bill which resulted in the Vocational Education Act of 1963 (P.L. 88–210). Spectacular gains have also been made since passage of the Vocational Education Amendments of 1968 (P.L. 90–576). This paper is concerned mainly with effects of the latter in reviewing specific examples of the state's increased services to its people.

Florida has made very significant progress in vocational education during the past eight years. Dramatic changes continue in progress. Geographic areas for the administration of vocational, technical and adult education have been established in the state to bring the total administration closer to the people and be more effective. (See page 3a). Actions by both the Florida Legislature and the U.S. Congress have been the force behind these changes.

In 1963, members of the Florida Legislature became increasingly aware of the needs of vocational education in the state and looked for ways and means to move this important educational program forward. At that time, Florida programs were dependent upon a few vocational schools for post-secondary and adult vocational education which were ordinarily in substandard facilities. High schools offered vocational education at the secondary level with vocational agriculture and vocational home economics being predominant. Of the 28 community colleges, only two had vocational education programs of any significant size.

The 1963 Florida Legislature took the following important steps:

1. Authorized district school boards, with the approval of the State Board of Education, to establish area vocational-technical centers as a part of a district school system.
2. Mandated the State Board of Education to conduct studies to determine the location of area centers.
3. Included area vocational-technical education centers, along with community colleges and universities, in a bond referendum to generate construction funds.

Florida voters approved the bond referendum in 1963, and in 1965 the Legislature authorized $8,000,000 for the construction of area vocational-technical centers and $8,000,000 for vocational education facilities in community colleges. These funds were matched with some $4,000,000 of Federal funds under the Vocational Education Act of 1963 and in this way the state embarked upon the development of a system of area vocational schools to serve its total population.

Concurrent with those developments, Federal funds under the Vocational Education Act of 1963 were also used to:

1. Improve and expand vocational programs in secondary schools.
2. Improve and expand vocational offerings at the post-secondary and adult levels.
3. Initiate programs for disadvantaged and handicapped persons.
4. Organize a Research Coordinating Unit and begin to develop a program of research.

By 1968, the status of the Florida program for vocational education centers, in brief, was as follows:

1. Twenty-one area vocational-technical centers to be operated by district school boards as separate institutions had been designated by the State Board for Vocational Education.
2. Thirteen community colleges had departments designated as area vocational education facilities.
3. One comprehensive high school had also been designated as an area vocational school.

Through June 30, 1968, $21,608,188 in State Bond Amendment funds and $15,879,543 in Federal funds were used for construction of these centers.

By June 30, 1968, 35 area schools had been designated, and most were in operation, having completed one or more phases of development. For the first time Florida's population, including students, parents, businessmen, legislators and educators, had the opportunity to view vocational education facilities of high quality in settings designed to lend prestige to the program.

From 1963 to 1968 enrollments at all levels for all target groups increased as follows:

Level or target group	Enrollment 1963	 1968
Secondary	74,491	139,965
Postsecondary	7,213	51,460
Adult	70,580	133,651
Disadvantaged and handicapped	0	4,536
Total	152,284	329,612

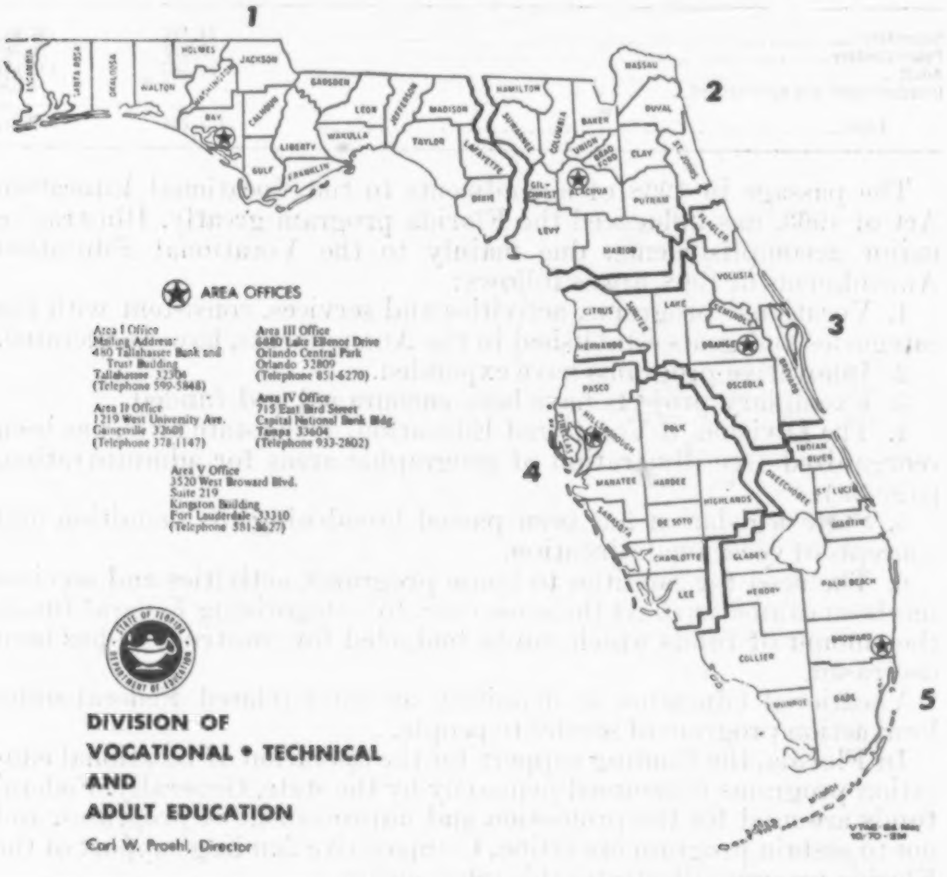
The passage in 1968 of amendments to the Vocational Education Act of 1963, has influenced the Florida program greatly. Illustrative major accomplishments, due mainly to the Vocational Education Amendments of 1968, are as follows:

1. Vocational programs, activities and services, consistent with the categories and goals established in the Amendments, have accelerated.
2. Innovative programs have expanded.
3. Exemplary projects have been encouraged and funded.
4. The Division of Vocational Education, at the state level, has been reorganized (see illustration of geographic areas for administration, page 3a).
5. State legislation has been passed broadening the definition and concepts of vocational education.
6. The need for facilities to house programs, activities and services has been dramatized. At the same time, by categorizing Federal funds, the amount of funds which can be budgeted for construction has been decreased.

Vocational education is definitely an inter-related Federal-state-local action program of service to people.

In Florida, the funding support for the operation of vocational education programs is assumed primarily by the state. Generally, Federal funds are used for the promotion and improvement of programs, and not to sustain program operation. Comparative funding support of the Florida program illustrates this relationship.

GEOGRAPHICAL AREAS FOR THE ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION IN FLORIDA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ESCAMBIA
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WASHINGTON
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FRANKLIN
WAKULLA
LEON
JEFFERSON
MADISON
TAYLOR
HAMILTON
SUWANNEE
LAFAYETTE
COLUMBIA
DIXIE
GILCHRIST
UNION
BRADFORD
BAKER
NASSAU
DUVAL
CLAY
ST. JOHNS
ALACHUA
PUTNAM
FLAGLER
LEVY
MARION
VOLUSIA
CITRUS
SUMTER
LAKE
SEMINOLE
HERNANDO
ORANGE
BREVARD
PASCO
PINELLAS
HILLSBOROUGH
POLK
OSCEOLA
INDIAN RIVER
MANATEE
HARDEE
OKEECHOBEE
ST. LUCIE
HIGHLANDS
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DIVISION OF
VOCATIONAL • TECHNICAL
AND
ADULT EDUCATION
Carl W. Proehl, Director

Fiscal year	Federa funds	State appropriations
1963	$1,325,000	$7,429,000
1968	7,567,000	21,428,000
1970	11,356,431	[1] 33,000,000

[1] Including local contributions.

Enrollments in vocational-technical education are projected to increase to over 600,000 in 1976. Nearly 300,000 are expected to be enrolled at the secondary level and about 300,000 enrolled at the post-secondary and adult levels.

As a result of Federal emphasis, and Federal financial support of vocational-technical education, Florida legislators have approved legislation as follows to expand the scope of career education:

(1) World-of-work instruction for grades K-6 has been added to the total educational program. Enrollments are expected to total about 790,000 in FY 1971-72

(2) Occupational orientation in grades 7-12 to familiarize students with job opportunities has been added. Enrollments are expected to total about 161,000 in FY 1976-77

(3) Increased opportunities for occupational preparation for job entry have been provided in grades 9–12

(4) Job-related instruction is required in all districts of the state

(5) Occupational specialists, to aid certified counselors, are to be employed in districts

(6) A vocational education administrator is to be employed by each district which offers a certain minimum program

(7) A vocational improvement fund, amounting to $6,000,000 the first year of operation, was provided by the state for the districts

(8) Vocational education has been redefined to include exploratory courses such as industrial arts, programs to develop occupational proficiency, and instruction in vocationally oriented home economics

(9) A plan for minimum counseling services is to be developed.

Thirty-nine area vocational-technical education facilities have now been designated throughout the state. Thirteen of the facilities are departments of community colleges and the rest are operated by district school boards. Thirty-four of the area schools are open and operating in permanent facilities. Designated area facilities will place training programs within commuting distance of over 98% of the state's population.

In 1970 the number of persons completing vocational-technical education programs was over 96,000. Of this figure almost 8,000 were in agriculture; 13,000 were in distributive fields; 2,300 were in health occupations; 30,000 were in home economics and of this number 3,600 were in programs for gainful employment for wages; 15,000 were in office occupations; 2,100 were in technical fields; and almost 25,000 were in industrial occupations.

The responsibility accepted by the Florida Legislature for the support of vocational education for all of the people of Florida has a direct bearing upon the uses to which Federal funds have been put and the recommendations for future direction of Federal legislation.

Since passage of the Vocational Education Amendments of 1968 state and local leaders have increasingly emphasized the importance of vocational-technical education. State legislators, leaders from business and industry, school personnel, community and religious leaders, parents and school children in grades K–12 have become and are becoming more conscious of the real purpose of education which is to prepare persons for life. The following are additional illustrative achievements of the state in emphasizing career education in Florida:

Enrollments in vocational-technical education totaled 474,000 in 1970—up more than 44% over 1968.

Over 33,000 disadvantaged or handicapped persons were served in vocational programs in 1970. Less than 5,000 were enrolled in 1968.

In 1970, of approximately $44,000,000 provided for vocational-technical education in Florida, $33,000,000 was from state and local sources and $11,000,000 was from Federal appropriations. In 1968 expenditures from all sources totaled about $35,000,000.

In 1968 about 37% of the high school students in grades 9–12 were enrolled in vocational education. In 1970 the percent enrolled had grown to 45%.

In 1971 Florida's unemployment rate was only 4.4%, considerably under the national rate, indicating job seekers do have skills to offer.

Vocational-technical education enrollments at the post-secondary and adult levels totaled nearly 290,000 in 1970, up from approximately 185,000 in 1968.

Under Part C of the Vocational Education Amendments of 1968 the Research Coordinating Unit promotes, coordinates and sponsors research programs in vocational education. The Unit sponsors training programs designed to familiarize persons involved in vocational education with research findings and successful exemplary programs.

Federal funds for vocational-technical education have been distributed according to allocations prescribed in different parts of the Vocational Education Amendments of 1968. Funds have been earmarked for disadvantaged and handicapped persons and for post-secondary vocational education. Projects received from local educational agencies, for programs, services and activities have been rated according to need based on the number of students enrolled or expected to be enrolled in vocational education programs at different levels which include ESEA Title I students, handicapped students, post-secondary students and adults needing training or retraining. Also considered are the number of out-of-school unemployed youth, heads of households with annual income less than $3,000 and handicapped out-of-school youth and handicapped adults. Additional considerations for funding include the total population of a district, the total labor force, the unemployment rate, the number of unfilled jobs, the wealth per student from the minimum milleage levy and the actual milleage levy for education. Districts of the state, or areas designed economically depressed and with high unemployment, as reported by the U.S. Secretary of Commerce, and/or the state CAMPS committee, or the Florida Department of Education receive special consideration for federal funds. Local area committees composed of state personnel from vocational services study district and community college requests for the funding of projects, and make recommendations to the State Coordinating Committee. The latter makes final judgments regarding the funding of projects.

Federal funds from the Vocational Education Amendments of 1968 have made it possible to encourage staff development in Florida. It has made possible the development, including university support, of the Vocational-Technical Teacher Education Master Plan. Florida will have a coordinated effort in the area of staff development for vocational education.

Federal funds authorized by the Amendments have supported the development of a Florida Vocational, Technical and Adult Education Management Information System.

The increased emphasis being placed by the Florida Legislature, and the Congress upon data, management, accountability and evaluation and the greater demands for timely and accurate information for administrative decision-making require more detailed and better coordinated information. A completely mechanized information system will help state and local educational agencies in performing numerous reporting obligations. Data common to several areas of administration will be available and the duplication of efforts to gather and process data will be reduced.

Florida's vocational education information system is a concept designed to meet the needs of major areas of administrative responsibility. The areas include student information; financial data; curricula; space/facility utilization; and placement and follow-up information.

The first of a two-phase implementation schedule for student records, enrollment, and teacher data files will begin in July, 1971. Statewide coverage will be completed by July, 1972. This system will generate, gather, edit and report accurate data for annual U.S. Office of Education reports. It will provide information to local educational agencies. In addition, accurate and timely data will be available to state legislative personnel and other concerned persons. Where hardware is provided for "on-hand" training, data processing will be accomplished as a by-product of the instructional process to teach computer programming, systems design, and keypunch and computer operations.

SECONDARY PROGRAMS

Financial support provided through passage of the Vocational Education Amendments of 1968 made additional funds available to upgrade vocational programs at the secondary level. Funds were used to purchase instructional equipment and supplies for on-going programs, and for initiating and implementing new programs. Efforts to improve and expand vocational offerings to meet the needs of secondary students resulted in an increase in enrollments from about 139,000 FY 1968 to about 200,000 projected in FY 1971. Growth in enrollments in the years represent a 44% increase.

State expenditures in vocational education programs at the secondary level totaled $11,897,000 in FY 1968. State expenditures in vocational educational programs during FY 1971 is expected to total about $25,563,000.

Growth in vocational education programs is reflected in the distribution of the 1968 enrollments compared with projected enrollments in 1971.

Area	1967-68	1970-71
Agricultural education	18,502	21,765
Distributive education	2,260	4,578
Health occupations education	63	654
Home economics education	91,330	130,142
Office occupations education	10,575	8,931
Technical education	488	920
Trades and industrial education	11,817	28,510
Diversified cooperative training	3,582	4,067
Total	138,617	199,567

Expansion in vocational education has continued to help meet the state's manpower needs. Programs in off-farm agriculture have been emphasized and new programs added. Enrollments in distributive education in the table above are up approximately 98% and industrial education increased about 165%. New programs in technical education were introduced at the secondary level and enrollments almost doubled over 1968.

In general, program objectives have been met through the substantial funding help of the Vocational Education Amendments of 1968.

POST-SECONDARY EDUCATION

Passage of the Vocational Education Amendments of 1968 made possible the increased service to out-of-school youth and adults in Florida. Funds became available to promote and improve on-going programs and to develop and activate new programs. Post-secondary vocational-technical institutions now offer a wide variety of vocational programs at the post-secondary level and in general adult education.

An analysis of the manpower needs and job opportunities in the state shows the employed labor force in 1970 to be about 3,554,000 persons. Approximately 10% of the above were employed in occupations requiring a baccalaureate degree and 3% were estimated to be unemployed. Thus about 3,000,000 workers were employed in the nonprofessional labor force.

Programs offered at the post-secondary and adult levels are making significant impact in meeting labor market demands through offerings in agricultural education, distributive education, health occupations education, home economics education, office occupations education, technical education and trades and industrial education. Through combined Federal, state and local funds, and vastly increased facilities as a result of wise expenditures of these funds, total enrollments at the post-secondary and adult levels have increased from 185,000 in 1968, to 247,000 in 1969 to 288,000 in 1970. It has been projected that enrollments will increase to 350,000 by 1976.

These projections are premised upon providing job preparatory training through post-secondary and adult programs to an enrollment equal to 11% of the labor force by 1976.

In FY 1967, 20 separate area vocational centers and 10 community colleges with departments designated area centers were offering courses in vocational education. By 1970 the number of area schools operating in permanent facilities had grown to 34 and were offering approximately 300 programs. Both preparatory and supplemental vocational education are offered at the post-secondary level.

The following reports, by vocational service, enrollments of youth and adults in post-secondary and adult vocational education in 1968 and enrollments projected for 1971.

Area	Post-secondary	Adults
Enrollments in 1968:		
Agricultural education	545	1,004
Distributive education	9,929	22,847
Health occupations education	4,636	2,072
Home economics education	152	30,798
Office occupations education	17,772	42,164
Technical education	11,618	4,764
Trades and industrial education	6,808	30,002
Total	51,460	133,651
Projections of enrollments in 1971:		
Agricultural education	1,811	904
Distributive education	16,461	24,935
Health occupations education	7,419	3,286
Home economics education	4,309	48,792
Office occupations education	64,471	40,324
Technical education	18,185	5,964
Trades and industrial education	12,240	49,679
Total	124,896	173,884

EDUCATION FOR DISADVANTAGED AND HANDICAPPED PERSONS

Prior to passage of the Vocational Education Amendments of 1968, and the designation of 15% of funds available under Part B for disadvantaged and 10% for handicapped persons, only meager amounts of Federal and State funds were available for persons with special needs.

Since the passage of the Amendments, vocational programs for persons with special needs have shown enormous growth. In 1969, over 10,000 disadvantaged and handicapped persons were served by programs in 37 districts, a substantial increase over the 6,000 enrolled in 31 districts in FY 1968. In 1970, over 33,800 persons with special needs were served by vocational programs in 67 school districts, a substantial increase over 1969, reflecting over 200% increase in the number of persons served.

Of the 474,010 persons enrolled in vocational education programs in 1970, 30,848 were classified disadvantaged, and 2,703 handicapped. In the same year, 1,850 teachers were employed, including full-time and part-time instructors, to teach programs for persons with special needs.

Enrollments of disadvantaged and handicapped persons in agricultural education totaled nearly 1,200 in 1970. Programs for these persons included farm management, agricultural mechanics, ornamental horticulture, landscaping, forestry, and general agriculture.

Enrollments of disadvantaged or handicapped students in office education totaled nearly 2,200 in 1970. Students were enrolled in accounting, bookkeeping, data processing, filing, office machines, office duplicating machines, office occupations, information communications, secretarial practice, typewriting and general office work.

Over 4,600 disadvantaged and/or handicapped persons were enrolled in distributive education in 1970. Illustrative of programs offered were hotel-motel management, personal services, retail trade, and general distributive education.

Nearly 1,000 disadvantaged or handicapped persons were enrolled in health occupations education in 1970. Enrollments were in dental assisting, dental laboratory technology, practical nursing, nurse aide, home health aide, physical therapy assistant, and medical assistant.

Over 12,000 enrollments of disadvantaged or handicapped persons were recorded in home economics education in 1970. In addition to home economics for useful employment, enrollments were recorded in care and guidance of children, clothing management, food management and production, home furnishings and equipment, and home and institutional management.

Nearly 11,000 disadvantaged and/or handicapped persons were enrolled in trades and industrial education in 1970. Over 1,000 enrollments were in appliance repair, auto mechanics, electronics, and diversified mechanics. Substantial enrollments were recorded in auto body and fender repair, carpentry, masonry, custodial services, electrician, machine shop, sheet metal, welding, cosmetology, small engine repair, dressmaking, upholstering, and millwork.

About 350 disadvantaged or handicapped persons enrolled in technical education programs in 1970 including drafting and design, engineering technology, data processing, and electronics.

Work experience program objectives are to develop and improve employment skills and to provide on-the-job experience for potential school leavers. Enrollments in work experience programs totaled approximately 4,400 in 1970, up 87% over FY 1969, indicating programs were meeting the needs of students and motivating them to remain in school and acquire additional vocational preparation. A significant factor which contributed to enrollment growth was the inclusion of 10th grade students in the program, extending the range of grades served from the 7th through the 10th. The work experience program articulates with other vocational-technical education programs to help students get additional training.

RESEARCH

Federal legislation to support vocational research has resulted in significant advances in education throughout Florida. The first, and probably most significant change, is the establishment of the Research and Evaluation Function as an integral part of the administrative structure. The department initiates, encourages, and coordinates research; aids in economic, social, and educational development; evaluates programs; and disseminates studies needed to improve vocational education in the state. The importance of the role of research and related activities in expanding and improving vocational programs is illustrated in the following paragraphs.

A changing, highly technical society produces many problems in planning, implementing and evaluating vocational programs to prepare persons for work. Problems must be dealt with in a logical manner if the programs are to meet the needs of labor markets and individual students. Availability of research personnel at the Division level to identify problem areas and bring research to bear on problems has made it possible to produce new knowledge and identify formerly unknown facts to maintain and expand high quality programs.

Examples of projects or studies funded are as follows:

Factors Related to Education and Occupational Aspirations of Early Adolescent Males from Culturally Deprived Families

A Follow-up Normative Study of Negro Intelligence and Achievement

Differential Identification of Successful Technical Students in Junior College

A Study of Nursing in Florida with Improvements for Nursing Education

A study of Post-Secondary Occupational Education in Florida.

Conclusions derived from projects such as the above provide valuable data and other pertinent information to continue and/or expand programs of vocational education.

Examples of projects utilizing research findings are:

An Interdisciplinary Approach to Improving the Development of Culturally Disadvantaged Children.

Computerized Drafting and Design.

Development of Post-High School Wage Earning Programs in Home Economics Education.

A Study to Develop Vocational, Technical and Adult Education in Brevard County.

An Exemplary Model for a Total Ecological Approach to Non-graded Vocational Programs in Four School Centers.

Comprehensive programs of vocational education that begin in kindergarten and extend through post-secondary schools have been mandated by the state legislature. To implement the legislative intent it has been necessary to support projects designed to develop, field test, and disseminate program information: at the elementary levels, to familiarize students with occupations in society; at the junior high levels, to provide opportunities to explore a wide variety of occupational clusters; at the senior and post-secondary levels, to prepare persons to enter and progress in the world-of-work. During the development phase of the studies, conclusions derived from research projects have been broadly explored. Promising results have been included in exemplary and innovative programs. Achievement of this aspect of the vocational education effort is in large dependent upon continued Federal support for developmental projects such as the following:

FAIS—The Fusion of Applied and Intellectual Skills.
LOOM—Learner Orientated Occupational Materials.
VIEW—Vital Information for Education and Work.

Evaluation, assessment and accountability are terms commonly used by educators in Florida when writing and talking about vocational programs, activities, and services. Research and evaluation activities have contributed immeasurably to the development of a State Assessment Program designed to evaluate the input, process, and product of vocational education. Examples of research projects directly related to these components are:

A Cost/Effectiveness Study of Area Vocational Programs.

Evaluation of Exemplary Vocational Education Programs in Dade, Duval, Escambia and Hillsborough Counties.

Cost Factors of Vocational Programs.

A Follow-up Study of High School Cooperative Distributive Education Students.

An Evaluation Model, and Instruments for Exemplary Programs.

Development of Criterion Referenced Instruments to Assess the Effectiveness of Instruments in Employability Skills.

The Research and Evaluation Function has been instrumental in establishing a State Department of Education Dissemination Center. It will identify, collect, screen, abstract, store, retrieve, package and distribute information of a research nature to persons at all instructional levels. Satellite Centers in 61 geographic areas of the state have been established to distribute relevant data. More than 100,000 pieces of research and related information are on file in the central office. Computer operations have greatly improved the use of materials and will result in an improved program of vocational education in Florida.

The Vocational Education Amendments of 1968 mandated the development of exemplary vocational programs to bridge the gap between learning and earning. The staff of the Vocational, Technical and Adult Division, Department of Education, is now involved in coordinating the development and implementation of specially designed programs which will serve urban disadvantaged and handicapped youth.

The Florida exemplary program model has been implemented in the following four demonstration school centers: Booker T. Washington Junior High School, Dade County (Miami); Career Education Center, Duval County (Jacksonville); Beggs Education Center, Escambia County (Pensacola); and George Washington Junior High School, Hillsborough County (Tampa).

A fifth exemplary program is scheduled to be established at Wymore Vocational School in Orange County (Orlando). The model implemented at this center will expand exemplary program objectives to include a comprehensive K–12 vocational program. At the elementary level, students will be oriented to the world-of-work. At the junior high school level students will explore clusters of occupations. At the senior high school level, students will prepare for work, or to continue vocational education.

Major purposes of the innovative programs are to develop educational and occupational skills, positive social behavioral modes and improved ecological patterns. Selected disadvantaged students are enrolled in the programs. Staff personnel of the four programs in operation developed criteria for identifying students between the ages of 13½ and 17½ with special learning needs. Students selected to participate obtained parental consent and enrolled in special nongraded instructional programs.

Other innovative aspects of illustrative exemplary programs are related to the in-service teacher education and vocational counseling components. The inservice teacher education program is designed to develop techniques for working with disadvantaged students by using individualized, prescriptive, self-pacing, learning packages. The counseling component is designed to assist in realistic career choice and occupational skill development. Around-the-clock counseling services will be provided to help students with home or other problems.

Another component to Florida exemplary programs is the increased use of community resources and involvement with constructive community activities. Three of the four programs described above are located in designated Model Cities areas. Cooperative relationships have been established and are being maintained between the exemplary programs and community action groups.

The expected outcomes of this innovative approach to service for youth with special needs are: (1) more career-relevant and self-fulfilling educational programs; (2) a decrease in absenteeism and drop-out rates; (3) a decrease in conflicts between law enforcement and other social agencies; (4) more positive social behavioral modes; and (5) greater involvement in constructive community activities.

Evaluation of the exemplary program model is being conducted by the University of West Florida. Program effectiveness will be measured by progress toward achievement of product and process objectives outlined in the innovative program design.

FLORIDA AREA VOCATIONAL EDUCATION SCHOOLS

Area vocational-technical education centers are a new type of public educational institution for Florida. They were created by the 1963 session of the Florida Legislature and defined in Chapter 230.63, Florida Statutes. The Florida Higher Education Bond Program was initiated in 1963. The latter, together with Federal funds for school construction from the Vocational Education Act of 1963, provided the funds needed to initiate the development of the new facilities in Florida. The Federal Vocational Education Act of 1963 made provisions for state boards for vocational education to designate certain types of educational institutions, "Area Vocational Education Schools." Such designation commits an institution to provide for all residents in its service area a comprehensive program of vocational education. The program must be designed to prepare persons to enter the labor market, or upgrade, update, or retrain employed persons who need training to maintain their jobs or advance in an occupation. Designation as an area school qualifies an institution to receive Federal funds to be matched with State or local funds for the construction of facilities.

Florida now has thirty-nine designated area vocational-technical education centers. Included are twenty-five operated by district school boards, thirteen community colleges with departments designated area centers, and one comprehensive high school designated an area facility.

It is significant to note that these thirty-nine designated schools are strategically located so that approximately 98% of the state's population is within commuting distance.

As construction funds become available from Federal, state and local sources, facilities are provided each area school in phases. Presently, twenty area vocational-technical centers, thirteen departments of community colleges and one department of a comprehensive high school are operating in permanent type facilities. Four of the remaining five area centers were authorized by the State Board of Education in FY 1971, and all five are scheduled to become operational in phase I permanent facilities in 1973.

State bond proceeds and Federal funds are the two main sources to develop area vocational-technical education schools. But, present and future construction needs cannot be met from present funding sources. Surveys completed during the past twelve months by state and local personnel have identified a need for approximately $16,000,000 for facilities at area vocational-technical centers alone. This tends to validate the Division staff projection of capital outlay needs for area centers through the 1972–73 biennium of $22,700,000. Since 1965, the total dollars available from the above sources for school construction has decreased as is indicated in the table below, but the number of schools in the system has increased.

SUMMARY OF FUNDS BY SOURCE ALLOCATED TO DESIGNATED AREA VOCATIONAL-TECHNICAL CENTERS
1965–67 THROUGH 1969–71

Number of centers	Biennium	Higher education trust funds	Federal	Total
20	1965–67	$8,000,000	$4,263,793	$12,263,793
22[1]	1967–69	5,715,000	3,780,935	9,495,935
26[1]	1969–71	4,500,000	1,653,500	6,153,500
Total		18,215,000	9,698,228	27,913,228

[1] Includes a department of 1 comprehensive high school designated as an area vocational education school which received only Federal funds.

SUMMARY OF FUNDS BY SOURCE ALLOCATED TO DESIGNATED DEPARTMENTS OF COMMUNITY COLLEGES 1965-67 THROUGH 1969-71

Number of departments	Biennium	Higher education trust funds	Federal	Total
10	1965-67	$3,934,591	$1,668,010	$5,602,601
12	1967-69	2,046,727	2,171,749	4,218,476
13	1969-71	410,000	398,000	808,000
Total		6,391,318	4,237,759	10,629,077

INTRA-STATE DISTRIBUTION OF FUNDS

Federal funds are distributed to districts, community colleges, universities, state agencies and other agencies or groups according to provisions of the Vocational Education Amendments and state rules and regulations. Generally, Federal funds are disbursed to begin new programs and to strengthen established programs. Federal funds are not ordinarily used to support ongoing programs over a period of time. Federal funds are used as "seed" money to stimulate local and state support of vocational education to serve target groups enumerated in the Amendments and in the Florida State Plan.

Federal funds are disbursed to districts and other eligible agencies of the state according to need. The latter involves population, the labor force, the unemployment rate, jobs unfilled, the wealth per student from the minimum milleage levy, and the milleage levy for education. Proposals for funding specific projects are included in district and community college planning guides which are prepared at the local level. These proposals contain information such as the make-up of classes to be served, the employment demand for a particular occupation, the location of the school in which the project will be conducted, and the disposition of enrollees in a particular program in the past year. Proposals are studied by members of area committees, composed of representatives of vocational services, along with other information included in planning guides. Through committee action, judgments are resolved and recommendations are made to the State Coordinating Committee. The later, composed of section heads from the vocational services, and other state personnel, makes final recommendations to the Director of the Division.

CONTRIBUTIONS OF THE STATE ADVISORY COUNCIL

The Florida State Advisory Council on Vocational and Technical Education has been active according to provisions of the Vocational Education Amendments of 1968. Listed below are some of its significant activities and accomplishments.

1. OPERATIONAL PROCEDURE

The Council has developed and adopted by-laws compatible with Federal P.L. 90-576, state regulations, and the Council's own emerging philosophy of purpose.

2. EVALUATION

Based on the recommendation of its evaluation committee, the Council contracted with a major state university for overall evaluation studies for FY 1970. Based on conclusions and findings in the studies, Council judgment, and other information, the Council submitted its evaluatiton report and recommendations to the State Board for Vocational Education.

The Director of the Division of Vocational, Technical and Adult Education recently submitted to the Council membership a report which itemized the action taken, or planned, regarding each recommendation made by the Council.

The FY 1971 evaluation activities of the Florida Council have been in progress several months.

3. FLORIDA STATE PLAN ACTIVITIES

The Council's State Plan Committe has met three times in work sessions with vocational division personnel developing Parts II, III, and IV of the FY 1972 State Plan. Committee reports have been made on progress at each regular Council meeting to secure Council direction and approval.

The Council's State Plan Committee has requested representatives of the other three divisions in the Florida Department of Education to attend work sessions and to express concerns about vocational-technical education. Divisions contacted are: Division of Elementary and Secondary Education; Division of Community Colleges; and the Division of Universities (Board of Regents).

4. PUBLIC MEETINGS

The Council held three public meetings to discuss the FY 1971 State Plan. For FY 1972, public meetings were held in the five largest population and economic centers in the state. Representatives of the county school districts, the community colleges, the Florida Department of Education, and the Florida Council have been involved in the meetings. A special effort has been made to secure participation of advisory and craft committee members, civic club education committees, vocational teachers, and others concerned about occupational education.

5. PUBLIC INFORMATION

At the suggestion of the Council's executive secretary, the National Advisory Council's public information counsultant was invited to Florida to demonstrate its pilot public information program. This program uses public service time on television and radio, and utilizes billboards. The Florida Director of Vocational Education elected to redirect part of the public information program to utilize concepts which include a pre- and post-public opinion survey. The Florida Council provided travel funds for consulting services furnished by the National Advisory Council.

6. FUNDING AND LEGISLATION

The Florida Council's activities in this area has been in the form of resolutions, and letters directed to appropriate persons in the Florida Legislature and the U.S. Congress.

Innovative Ideas for Career Education

Dramatic changes are taking place in Florida's whole educational program. There is a broadened and changed role of vocational education. A comprehensive vocational education program is underway in the state. "Career education" is the idea and ideal of the day.

In 1970, the Florida Legislature enacted eight bills known as the "Vocational Education Package." These bills broadened the definition of vocational education. One mandated that the State Board of Education adopt minimum standards for a comprehensive vocational education program. One established new funding formulas. Another mandated evaluation of the output of programs. One required increased vocational counseling services through the employment of occupational specialists. The legislation placed responsibility on district school boards for the vocational training of youth in or out of school under 19 years of age. A bill was passed to require the employment of a local director of vocational education which would give leadership to the program in each school district and in each community college with a department of vocational education designated as an area vocational school. A bill established the Vocational Improvement Fund.

One goal of the comprehensive vocational education program, and the total education system, is provision for every student to acquire skills which will help earn a livelihood for himself and for his future family, regardless of the time the student leaves school. Acquired skills are not to be confined to the manipulative skills but would also include all those which a person uses to contribute to individual fulfillment and society.

As established by the Florida State Board of Education, the comprehensive vocational education program is offered in instructional components organized as follows:

1. Instruction is to be given in grades 1–6 to familiarize pupils, including those considered to be disadvantaged or handicapped, with the world-of-work information. Emphasis is placed on the relationship of the world-of-work to the on-going instructional program.

2. Instruction is to be given in grades 7–9 to pupils, including persons considered to be disadvantaged or handicapped, in the following areas:

   (*a*) Occupational exploratory experiences, including industrial arts and vocationally oriented home economics

   (*b*) Direct job related instruction for potential school leavers, and others if essential in meeting their educational needs.

3. Instruction is to be offered, and activities provided for pupils in grades 10–12, including persons considered to be disadvantaged or handicapped, in the following areas:

   (*a*) Direct job related instruction for pupils planning to graduate and for those who may leave school before graduation (*b*) Pre-technical vocational education instruction, including technically oriented industrial arts, for persons planning to enroll in an advanced or highly skilled vocational or technical program at the post-secondary level

(*c*) Instruction in vocationally oriented home economics

(*d*) Special courses for disadvantaged or handicapped students

(*e*) Activities for pupils in vocational youth organizations.

4. Instruction is to be offered at the post-secondary level to serve youth under 19 years of age who have completed high school or left school before graduation, who are unemployed or underemployed, including those considered to be disadvantaged or handicapped, with organized programs of instruction to prepare for gainful employment.

5. Instruction is to be offered at the post-secondary level to provide persons 19 years of age and older in community colleges, who have completed high school or left school before high school graduation, including those considered to be disadvantaged or handicapped, with organized programs of instruction leading to a certificate or an associate degree to prepare for gainful employment.

6. Instruction is to be offered at the adult level to provide individuals training or retraining to insure stability or advancement in employment. Instruction is to be provided adults who have already entered the labor market and who are employed or seeking employment. Included are persons considered to be disadvantaged or handicapped. Programs may include vocationally oriented home economics designed to prepare adults for the role of homemaker, or to contribute to the employability of such adults in the dual role of homemaker and wage earner.

The scope of vocational education includes world-of-work instruction in the elementary grades and courses in exploratory education, agricultural education, business education, cooperative and work experience education, distributive education, health occupations education, home economics education, industrial education, pre-technical education, technical education, direct job related education, compensatory education, and other offerings for disadvantaged and handicapped persons, as defined in Federal and state laws and regulations.

Complete career education will be made available to all residents of Florida. This means that district school boards and community college boards of trustees will cooperatively develop and adopt specific areas of responsibility to assure efficient utilization of all available resources to achieve established goals of service.

The State Board of Education, as statewide policy, has placed primary responsibility at the district and community college level for the development of components of the comprehensive vocational education program. A Coordinating Council for Vocational Education has been prescribed for each community college district to represent school districts and the community college in planning for mutual benefit. The responsibility of the Council is to review the total vocational program being offered in the districts, to make necessary recommendations to encourage the development of needed programs, and to avoid unwarranted duplication.

Based upon established needs, the vocational education goals for 1976 are:

1. All elementary students, grades 1–6, should be involved in world-of-work program experiences.

2. Ninety percent, or 326,962, of the students in grades 7–9 should be enrolled in occupational orientation, while 10%, or 24,219, of the students at the same level who are potential dropouts should receive direct job preparation instruction.

3. Forty-seven percent, or 92,607, of the students at the 10–12 grade level should receive preparatory job training.

4. Enrollments equal to 5% of the labor force should be in preparatory job training at the post-secondary level.

5. Enrollments equal to 6% of the labor force should be receiving supplemental or upgrading training at the adult level.

RECOMMENDATIONS

The following recommendations are made to highlight areas of concern needing attention. They are listed without consideration of priority in relative importance.

1. Categorical aid should be continued; however, there is need to provide greater flexibility in transfer of dollars from one category to another when a state is demonstrating that it is meeting the intent of the Act but dollar transfers are essential for the development of a comprehensive vocational education program to meet the needs of all residents of the state.

It is recognized that the U.S. Commissioner of Education has blanket authority to permit transfers, but criteria need to be established in law for his guidance in the administrative implementation of this authority as well as for the guidance of the state making such a request.

A state may have funds which it can appropriate in larger amounts for support of vocational education for certain target groups and lesser amounts for others. Vocational education is an interrelated Federal-State-local program. The composite financial effort and results of that effort need to be considered in making such a judgment rather than Federal funds alone.

2. Specific authorization should be provided for the use of funds from any category for construction and renovation of facilities to house programs.

Federal funds under the Act basically are operational in nature. The thrust of Federal dollars within categories is to broaden vocational education programs, activities, and services for persons in those categories.

The time is fast approaching when increased operational funds may not be used effectively, either from a short range or long range point of view, without specific authority to use Federal funds for construction of new facilities or major renovation of existing facilities to house the additional programs.

The need for construction funds to appropriately and adequately house programs for disadvantaged and handicapped students as well as those at the secondary and post-secondary levels is most critical.

The categorization of funds and the elimination of the 33⅓% provisions of the 63 Act for construction was a serious blow to the orderly development of a comprehensive vocational education program in this state.

3. The greatest single handicap to the orderly development of a vocational education program within a state is the lack of up-to-date labor market information of a predictive nature on a continuing basis which may be used in program planning and evaluation.

There is a philosophy which has been expressed from time to time that the U.S. Department of Labor is the Federal agency responsible for the manpower of the nation. If such is a prime responsibility of the U.S. Department of Labor, there has been no appropriate definitive labor market data at state and local levels which is usable in planning and evaluating vocational education programs.

This need has been pin-pointed by vocational educators for some years. On the one hand, vocational education has at times received criticism for not meeting manpower needs. On the other hand, there has been no specific effort other than that by vocational educators to determine the occupations for which training programs are justified.

Consideration should be given to authorizing State Boards for Vocational Education to contract with State Labor Departments and others, if necessary, to provide labor market information of the proper type on a continuing basis with funds being appropriated in the Act for this purpose.

4. An aggressive, effective vocational education program must have the built-in capability of changing its instruction to meet the needs of business, industry and the students.

A significant part of that change is dependent upon up-dated and new curricula and curriculum guides.

Some limited activities in this area have been undertaken by the U.S. Office of Education. This appropach is not the complete answer to this problem.

Funds need to be made available to states for the development and revision of curricula and course materials on a continuing basis to support the program of a state.

As one views the increasing breadth of a comprehensive vocational education program in terms of career development the demand for curricula is staggering.

5. The Federal fund thrust to serve the disadvantaged and the handicapped persons through vocational education programs, could be accelerated and perhaps more effective if increased and continuing appropriations were made for the work study program.

There are many individuals, youngsters and adults, who need to but cannot engage in vocational training without some financial assistance on some firm base.

In this regard, consideration needs to be given to making it possible for adults to earn an amount appropriate to their needs.

6. There needs to be a greater "lead time" between the time appropriations and allocations to states are made and when the money begins to flow to states.

Although much effort and staff time at the state and local levels are expended in developing plans, both annual and long range, the present time schedule for appropriations detracts considerably from effective implementation of the planning effort.

7. A rapidly expanding and changing vocational education program demands increasing emphasis upon the training and retraining of personnel at all levels.

There is need for expansion of the EPDA Program and financial effort.

8. An effective Management Information System at the state, district, institution, and school levels is essential to decision making in regard to education and vocational education in particular.

It is most difficult to coordinate state and local development in this area when efforts in this direction at the national level are not coordinated either among agencies and projects being operated or between those agencies and the states.

There is need to effect centralization of this effort with effective coordination between the Federal government and the states, as well as among states in the further development of a Management Information System.

9. The U.S. Office of Education is consistently making changes in reporting procedures and types of data required without sufficient lead time for a state to adjust to the new requirements.

Most changes have been made for reporting data on a fiscal year's operation during that fiscal year after state reporting procedures have been established and, in some instances, so late in the fiscal year that reports from local districts have already begun to flow into the state office.

Criteria need to be established for the guidance of Federal administrators in their administrative implementation of Federal laws so that undue and unnecessary hardship is not placed upon the states and local school districts.

10. As states move into a comprehensive vocational education program for career development, greater stress will need to be placed on work experience and cooperative training involving close cooperation between business and industry and the schools.

The Florida State Board of Education has adopted regulations which, under certain circumstances, permit high school seniors to work full-time under a cooperative education agreement between the schools and employers with such experience being accepted for the full credit normally earned through academic studies during that year.

With this change in policy, as well as the emphasis already being given to cooperative education in the senior high schools and work experience education at the junior high school level, the legal structure relating to the employment of youngsters 14 to 18 years of age, as "learners" or "trainees", needs to be streamlined without forfeiting the protection of law to minors.

It is estimated that 57%, or as many as some 113,000 Florida high school students, would profit from these types of programs and should be enrolled in them by 1976.

There are three areas of primary concern: (a) the elimination of the red tape involved in obtaining "learner permits" from the U.S. Department of Labor, (b) the exemption of certain age groups, such as 14 and 15 year olds, from the minimum wage requirements, and (c) authorization for employers engaged in inter-state commerce to employ youngsters, 14 and 15 years of age, when they are in a work experience or cooperative education program conducted under an agreement with the school and under the general supervision of a representative of the school employed by the school full-time for that purpose.

11. There is great stress upon introducing innovation into the public school curriculum including concepts of a comprehensive vocational education program for career development.

Less attention, however, has been directed toward a means of bringing these changes about throughout a state.

The concept of the "exemplary project" as a means of determining the value of changes has been most significant, but to diffuse these concepts more broadly there is need for increased financial support in this category so that exemplary programs with proven value can be established as "demonstration projects" in other areas of the state.

12. In identifiable areas of a state there may be many individuals in needs of vocational education, but jobs are just not available in such areas.

For jobs to be available, they must be created.

Each State Board for Vocational Education should have the authority and financial capability to provide immediate training, tailor-made to the needs of a single new or expanding industry which is creating new jobs.

The type of training could be limited to one year or less in length and be geared to semi-skilled or skilled operator-type jobs.

Flexibility in approaches to providing this training should be considered.

13. Any program to move forward must have strong leadership with continuity in planning and administration at a level comparable to other elements in an organizational structure for a total educational program. It has been demonstrated repeatedly at local and state levels that this is a concept fundamental to effective and efficient vocational education.

There is a critical need for adequate representation at the Federal level for vocational education to provide strong leadership and continuity. Leadership positions for vocational education within the U.S. Office of Education need to be on the same level in the organizational structure as those for other major elements of the total educational effort.

14. Although much effort is being expended to introduce innovation in vocational education programs, activities and services, the same type of emphasis is not being placed upon innovation in teacher training programs, particularly in the preservice and inservice training of teachers and guidance personnel.

There needs to be a thrust of support for innovation in teacher education compatible with new directions set by Federal and State legislation.

15. The concept presently in law that research funds need to be retained by the U.S. Commissioner should be reviewed.

Basic research has a place in vocational education and to the extent necessary may need to be coordinated at the federal level. Basic research, however, significant as it may be, should not be the major thrust of Research Funds.

From the point of view of program improvement at the state and local levels, basic research has little if any influence unless the results can be translated from the theoretical into the practical within given operational situations.

The thrust of Research Funds should be at the state and local levels to apply the findings of basic research projects already completed. Therefore, the U.S. Commissioner's share of Part C Funds should be made available as part of the states' allotment to financially support projects directly related to the implementation of basic research rather than to conduct basic research in itself.

16. Great stress is being placed on "accountability" at all levels in public education.

As states and local school districts move into a comprehensive vocational education program for career development, four important functions need to be emphasized:

(*a*) The assessment of educational output primarily at the elementary, middle and junior high school levels.

(*b*) Followup of all school dropouts and a determination made of the reasons for leaving school with an aggressive recruitment program to bring these school leavers into vocational training.

(*c*) The establishment of a school placement service.

(*d*) The placement on jobs of those completing specialized vocational training programs and followup on the job with particular emphasis on satisfactory performance of students in employment.

Since these areas of concern have been neglected over the years, a significant financial thrust is necessary to begin moving state and local programs in this direction.

GEORGIA

State Director—George W. Mulling

A REPORT ON CHANGES IN VOCATIONAL EDUCATION IN GEORGIA SINCE THE 1968 AMENDMENTS

VOCATIONAL EDUCATION BEFORE THE 1968 AMENDMENTS

Prior to the 1968 Vocational Education Amendments, Georgia's vocational program at the secondary level was largely composed of a strong traditional program of vocational agriculture, home economics, and business education. Any additional programs were confined to the 11th and 12th grades and to the post-secondary level. Primary emphasis throughout was on selecting for success rather than teaching for success. By this means those who needed it most were either excluded from the program or had become "drop-outs" prior to the 11th grade level.

There was no over-all state-wide program for vocational education. Instead of this there was a Vocational Agriculture Program, a Distributive Education Program, a Trade and Industrial Education Program, etc., and the energies of State leadership were often devoted to preserving and expanding individual vocational services, rather than assisting systems to design and implement a comprehensive program of vocational education based on student needs. This served only to perpetuate and extend the already existing imbalance in vocational offerings as seen in comparison with the realities of the labor market.

THE 1968 AMENDMENTS—A RE-DEFINITION OF VOCATIONAL EDUCATION

With the 1968 Amendments the whole perspective of vocational education has been changed. The act has served to re-define vocational education in a much broader perspective than ever before. It now includes such things as facilitating occupational choice; providing training in a family of jobs rather than just a single skill; preparing the student for higher levels of vocational education; counseling and guidance; providing related instruction for occupations in which students are being trained, or instruction necessary for students to benefit from such training; and job placement. In short, it provides a curriculum designed to move the student from school to a job or to his next career step.

A NEW DIRECTION FOR VOCATIONAL EDUCATION IN GEORGIA

Moving in the direction outlined by the 1968 Amendments to the Vocational Education Act, we have literally re-designed Vocational Education in Georgia. This is resulting in Vocational Education being organized into the mainstream of education.

We have moved to a developmental, comprehensive and integrated program. It is developmental in its structure with objectives focusing on goals by grade levels. It is comprehensive in terms of providing program options for all students and a vocational enrollment distribution that approximates the manpower distribution. It is integrated in that it is related to other school discipline areas, such as vocational with academic, in order to make both more meaningful to the student.

By fall, 1971, Georgia will have at least 50 secondary schools in which students will have access to a developmental vocational curriculum from grades seven through post-secondary.

GOAL SETTING

We now have common goals for Vocational Education in Georgia. Before this everybody had his own and we were going in different directions. Now needs are being defined by educational levels, by students, by manpower distribution and by geographical areas. Care is taken to set up program priorities so that funds will be allocated to the schools where there is a major gap, such as a high dropout rate.

STATE PLAN FOR VOCATIONAL EDUCATION

With the requirements of a State Plan for Vocational Education, planning has now moved to the State level, resulting in an over-all coordinated plan for Georgia. This in turn requires that all Vocational Education funds be spent in accordance with certain specific plans set forth therein and sets forth in detail the policies and procedures to be followed by the State in the distribution of funds to local educational agencies in the State.

Having such a State Plan has enabled us to set minimum standards, to insist on systems meeting certain pre-requisites for implementing certain processes, to re-direct existing programs, and to tie funds to results. This has provided the needed impetus for moving us in the right direction.

LOCAL PLANS FOR VOCATIONAL EDUCATION

The requirement of Local Plans for Vocational Education has provided an opportunity to help local systems with comprehensive total planning, something that had been done on a piece-meal and intermittent basis before, with each service area vying for the lion's share. This has helped to create a new interest by all systems in Vocational Education so that present demands far exceed the money.

SOME MAJOR CHANGES: KINDERGARTEN—GRADE 12

The 1968 Amendments have resulted in a restructuring of education in Georgia in grades K–12 to provide a developmental approach to education with goals set by grade levels. It has also become comprehensive in that it provides options for all students and is directed toward a vocational enrollment that parallels the manpower distribution. We have also moved to an integrated approach in Vocational Education through relating the vocational training to other school discipline areas. (See Appendix A which outlines this approach in detail).

Prevocational courses at the junior high level permit students to perform simple tasks in a simulated work environment where they are permitted to work with the tools, materials, processes and products peculiar to a given work setting. These courses have helped to make education relevant to many during a critical decision point in their lives.

An outstanding program made possible by the 1968 Amendments is our Program of Education and Career Exploration (P.E.C.E. Program) for seventh, eighth or ninth grades. This program is designed to allow the student to acquire a base of experience, knowledge and skills for future decision-making, and to make a *tentative choice* of a broad occupational area for in-depth exploration. The program content is organized around work roles and students are systematically exposed to real or simulated work experiences within the six major occupational interest groupings of service, business, organizational, expression of ideas, outdoors, and technology. After experiencing a work role, the student shares his observations with other students in small guidance groups. These work observations are supplemented by career development films and guidance units conducted by coordinators who were given special university preparation during a summer quarter.

At present we have sixty-seven programs in the state with a total enrollment of 11,000 students. With the initiation of this program absenteeism rates in many schools have been cut in half. Students participating in this program make significantly higher scores than non-enrolled students on an occupational knowledge test. All evidence indicates that this program has considerably increased the interest and motivation of students in school and provided them with a reliable base for future career decision-making.

Another outstanding program in Georgia made possible by the 1968 Amendments is our Coordinated Vocational and Academic Education (C.V.A.E.) Program. This is a high school program designed for students identified as potential school dropouts in grades eight through twelve. The program is designed to coordinate the student's on the job training with in-school vocational and academic courses. In this program students can see a direct relationship between their classroom activities and how these skills apply to jobs and life. If studies are not relevant to these students' particular needs they will often rebel. However, through interlocking academic subjects with vocational subjects and on-the-job experience the students can be brought to see the need for acquiring such skills. In this program, we seek to provide an atmosphere of acceptance that says to the student: "I'm concerned about you. I want to help you regardless of your shortcomings or negative attitudes." This is a program that does not stipulate what a student has to be or do or say in order to merit acceptance. Instead, it accepts him as he is and will work at helping him to develop the traits and attitudes necessary for success in life.

At present we have 54 C.V.A.E. programs with 2,700 potential dropouts enrolled. First priority for this program was given to those schools that had a dropout rate higher than the state average. The program has already resulted in better work habits, more interest in school, better attendance, the development of decision-making skills for many students, and the movement of many students into higher level vocational programs.

Another important change is the adoption of the cluster curriculum concept in secondary vocational programs so that students are trained in a family of jobs rather than restricted to a single skill.

There is now greater articulation between secondary and post-secondary personnel through joint workshops that have been provided. This has promoted better understanding of problems and goals by staff at both levels and has paved the way to a smoother transition for students to the next higher level of Vocational Education.

The responsibility for job placement is being accepted increasingly by secondary schools with counselors and vocational staff working cooperatively to provide an effective job placement program for all students.

In summing up the progress in this area let me say that priority for expansion of the programs is being placed on making vocational education available to students in the earlier grades and altering the curriculum to make it more relevant to the needs of students in both the middle and upper grade levels. Considerable emphasis is being placed on vocational orientation, pre-vocational and cooperative work experience programs. An increasing amount of the secondary funding is going into the development of comprehensive high school centers which are designed to prepare high school youth for job entry.

It was the intention of Congress to bring about these kinds of results through the 1968 Amendments, and these results are being accomplished in Georgia.

SOME MAJOR CHANGES: POSTSECONDARY

Georgia already had a strong post-secondary program when the 1968 Amendments were passed, but they have built upon this and sought to expand their facilities and improve their outreach with the aid afforded them through the 1968 Amendments.

Expansion of facilities resulted in two new area vocational-technical schools being built in their entirety at Carrollton and Ocilla. Additional facilities have been added at eight of the already existing schools. In addition to these, three comprehensive manpower centers have been built throughout the State. In total the system is presently made up of 23 area vocational-technical schools, two residential type state schools, and four adult vocational centers.

Emphasis has also been placed on greater use of existing equipment and staff, on serving a larger number of non-high school graduates, and on expanding the outreach of the school to include people who needed vocational training but were not aware of their own needs or of its accessibility.

To make our schools an "including in" agency, rather than an "excluding out" agency we developed the Learning-Earning Educational Program (LEEP) designed to recruit school dropouts who otherwise would not be qualified to enter vocational training, and to make them qualified through training in basic education, employability skills, part time on-the-job training, and vocational training for a salable skill. These students then were either placed on a full time job, entered in a full-time vocational training program with part-time employment, or entered in a part-time vocational training program with full-time employment.

The Disadvantaged and Handicapped Projects have also enabled these schools to meet the needs of students who otherwise could not have been served. They have done this through providing a type of training that is designed to meet this need, altering the curriculum where necessary and providing the materials and facilities needed to orient the services of the school to meet these needs.

As a result of the 1968 Amendments, adults below certain income levels have become special target groups, state product objectives have been more clearly defined and the whole program has moved toward a management system. Through increased services and accessibility thereto provided by the 1968 Amendments, enrollment has increased from 13,906 full-time and 76,000 part-time students in 1967–68 to an enrollment of 17,042 full-time and 108,449 part-time students in 1970–71. The increased outreach has been aimed particularly toward reaching disadvantaged and handicapped students.

SOME DISADVANTAGED AND HANDICAPPED STUDENTS

Georgia's 25 percent set-aside funds provided for Disadvantaged and Handicapped through the 1968 Amendments are being administered through the project method. It was felt that this method was the best approach for obtaining the desired results.

Guidelines governing special projects to serve the disadvantaged and handicapped were developed. The guidelines include a major objective of having both secondary and post-secondary schools implement new programs and modify their existing curriculums and educational structure to more effectively provide for the needs of the disadvantaged and handicapped. Each system wishing to compete for these monies had to submit a proposal to the Division of Vocational Education outlining in detail a step by step plan for how it would:

1. Provide additional vocational education programs to disadvantaged and handicapped students.
2. Provide a greater total school emphasis on programs for the disadvantaged and handicapped.
3. Interlock vocational and academic education.
4. Provide supportive services for students classified as disadvantaged and handicapped.
5. More effectively utilize all school and community resources to serve the disadvantaged and handicapped.

In addition to the planned approach for modifying and restructuring the educational curriculum each system was required to complete a set of "accountability" objectives against which the accomplishment of expected results could be measured. This means that each system had to state the degree to which it would produce results in such areas as reduction of dropouts, increased accessibility to vocational education programs, increased number of jobs for graduates and dropouts, increased preparations of students for entry level jobs, and increases in the number of students being placed on jobs earning above the minimum wage.

Projects were approved on a basis of open competition. A review committee composed of representatives selected from various fields in education provided the evaluation of the projects and made recommendations regarding approval. Special grants to systems to conduct projects were awarded based on expected results to be obtained from implementation of the projects.

Each project at the secondary level consisted of a plan of vocational education from grades 7 through 12 which included an exploratory, prevocational and vocational phase. Each project included a major thrust toward providing a developmental and comprehensive vocational program. This was accomplished by implementing new vocational programs or prevocational programs at strategic points in the school curriculum, interlocking vocational with academic curricula, and movement toward more effective utilization of all community resources.

To date, 36 secondary and 14 post-secondary school systems have been awarded special project grants at a total cost of 2.3 million dollars. A chart showing their geographical distribution by size of system is attached as Appendix B.

These 50 projects will employ 168 vocational teachers and will serve 10,000 additional disadvantaged and handicapped students. This illustrates how vocational funds can be used to deliver service to students with needs rather than just buying more equipment.

Present indications are that schools conducting these special projects are being successful in reducing dropouts, increasing attendance and providing more vocational education programs to disadvantaged and handicapped students. Furthermore, we have been able to restructure the entire school with this money and to redirect their other funds so as to make the school an "including-in" agency. A chart showing criteria to be met by schools receiving a grant award to serve disadvantaged and handicapped students is achieved as Appendix C.

MINI-GRANTS

Another phase of our Disadvantaged and Handicapped Program is an effort to encourage individual teachers at the local level to examine their curricula in terms of more effectively serving the disadvantaged and handicapped. The Division of Vocational Education is providing grant awards up to $1,500 per teacher to be used in the purchase of supplies and materials to help teachers of disadvantaged and handicapped students to individualize their instructional program. In order to qualify for the $1,500 grant, the teacher must present a plan showing:

1. How he proposes to change his instructional program to more effectively serve the disadvantaged and handicapped.
2. How the materials to be purchased can be used to more individualize the instruction.
3. How the program will be interlocked with other academic and vocational areas.

Three hundred and forty-eight grant awards are to be made available to individual teachers throughout the state with proportionate numbers being allocated to each vocational category.

GRANTS TO ECONOMICALLY DEPRESSED AND RURAL AREAS

In an effort to try to broaden the vocational offerings of schools in economically depressed areas and of systems having fewer than 1000 students in high school, the Division of Vocational Education is providing an opportunity for these systems to obtain $100,000 in matching funds. In order to qualify for this money each system must agree to implement a comprehensive vocational program at the high school level. This includes:

1. An exploratory program in grades 7, 8 or 9.
2. Prevocational programs in grades 8 and 9.
3. A vocational program at the high school level which includes at least five vocational curriculum areas, each of which is offered for at least two years on a 2-hour daily basis.

In addition, each system receiving a $100,000 grant must agree to implement a state directed curriculum that provides for a more comprehensive program for serving the disadvantaged and handicapped through vocational education.

SOME MAJOR CHANGES: RESEARCH

The 1968 Amendments have also had far-reaching effects on research. Vocational education research in Georgia is carried out particularly by the Research Coordinating Unit of the Vocational Education Division of the State Department of Education. The broad objective of this unit may be stated as follows:

> To identify those barriers that prevent us from accomplishing the State objectives for vocational education and direct our research efforts to eliminate those barriers.

To accomplish this objective, the Research Coordinating Unit along with other elements of the Division of Vocational Education has established several priority areas of concern for which research funds of the 1968 Vocational Education Amendments are to be used. The priorities are: Determining projected employment demands and possible career ladders for secondary vocational curriculum clusters; Changing public perceptions of vocational education; Modifying existing high school business education learning processes to more effectively prepare disadvantaged and handicapped students for office occupations; Developing and piloting a "world of work" curriculum for kindergarten through grade six; Developing and piloting a model counseling program for an area vocational-technical school's part-time adult students; Developing and piloting a program of individualized instructional packages for secondary vocational curriculum clusters; Developing and piloting a core of individualized instructional packages in marketing and distribution for post-secondary schools; Developing and piloting a program of individualized instructional packages for five post-secondary vocational offerings in the field of trade and technical education; Preparing elementary teachers and counselors for the process of fusing career development activities into the curriculum, and Developing and piloting program texts in math for six secondary and post-secondary vocational clusters.

Vocational educators throughout the state are now preparing proposals addressed to those priorities. A direct result of the research will be to make vocational education in Georgia more accessible and available at all levels from elementary school career exploration through post-secondary and adult vocational training. The results will make vocational education more relevant to the needs of today's youth and to the state's manpower needs. These research results will further enhance the ability of Georgia vocational educators to serve disadvantaged and handicapped students throughout the state.

The 1968 Vocational Education Amendments have had an impact on the use of funds from other legislative sources. In Georgia, a prime example of this is the Education Professions Development Act (EPDA).

Georgia's Vocational Education Division recognizes that a state's vocational programs are no better than the training of the personnel who man them. As a result, we have made excellent use of the Education Professions Development Act. School superintendents, principals, counselors, instructors at all levels, and state staff have received special professional development training. Some 638 of these school staff members attended special summer workshops during 1970. These workshops were designed to expand methods and techniques for instructing disadvantaged and handicapped students, to explore methods of providing new career exploration opportunities to elementary and middle grade students and to provide special teaching techniques for teachers who will work with potential school dropouts.

The last two items mentioned have to do with two newly developed programs designed to help fill critical gaps in career exploration and in-service to the state's many potential school dropouts. To respond to this need, the Vocational Education Division developed the Program of Education and Career Exploration (PECE) and the Coordinated Vocational and Academic Education program (CVAE). Both of these programs required new and carefully trained personnel. The personnel, of course, have been trained and developed as a part of Georgia's EPDA projects. These programs now have widespread acceptance throughout the state.

The EPDA program will continue this summer through a series of ten special programs to train, upgrade and develop vocational educators throughout the state. The principal objective of Georgia's EPDA program for vocational education is to use the professional development funds to bring about re-direction in vocational education through vocational teacher education in order to adequately meet the needs of the state, and guide vocational education toward the goals of the 1968 Vocational Education Amendments.

Curriculum development has also received considerable attention as a result of the 1968 vocational education amendments. There have been special curriculum projects at both the post-secondary level and the secondary level.

At the post-secondary level, the project has been concerned with enabling schools to enroll students during any quarter by making each unit of study stand on its own and function with a minimum number of prerequisites. This effort has also been concerned with developing behavioral objectives for the several course areas. Teaching techniques and student learning activities have been identified for accomplishing these behavioral objectives. As a result of each quarter's studies standing on their own and the instructor addressing himself to the accomplishment of the designated behavioral objectives, students will be able to depart from the program with different levels of job skills. Student competencies will vary from simple entry level skills to more advanced and complex job skills and knowledge. This is a further outcome of the post-secondary curriculum study. As an overall result post-secondary vocational-technical school curriculums have become more accessible, more relevant, and better able to serve disadvantaged and handicapped students in traditional vocational programs.

The curriculum effort at the secondary level has focused on the cluster concept. A system of cluster curricula has been developed for the area comprehensive high schools now becoming operational in Georgia. As a result of the cluster method of instruction high school students benefit in the following ways:

1. They have greater flexibility in occupational choice patterns.
2. They are provided with vocational competence that affords them a greater degree of mobility on a geographical basis.
3. They will have the kind of vocational competence that will afford them mobility for jobs within an individual industry or plant.

SOME MAJOR CHANGES: REIMBURSEMENT

The far-reaching effects of the 1968 Amendments have also made changes in reimbursement of vocational funds in Georgia.

Our budget is now set up according to the following grade levels: K–6; 7–9; 10–12; and post-secondary and adult.

Also it has become necessary to earmark funds for certain specific purposes as follows:

1. For certain geographical areas.
2. For disadvantaged and handicapped.
3. For areas of high unemployment.
4. For systems with a high dropout rate.
5. For economically depressed counties.
6. For small schools.

Other major changes in reimbursement of vocational funds to school districts include use of the project method for funding projects to serve disadvantaged and handicapped students, use of a formula as prescribed in the State Plan for Vocational Education when determining priorities in funding, and requiring that accountability be built into projects so that objectives identified in the project proposal must be reasonably attained before projects can be renewed.

THE GEORGIA ADVISORY COUNCIL FOR VOCATIONAL EDUCATION

The 1968 Amendments for vocational education called for the establishment of a State Advisory Council for Vocational Education. The Council was created for the expressed purpose of:

1. Advising the State Board for Vocational Education on development of the state plan for vocational education;
2. Evaluating vocational education programs, services, activities, and publication of results;
3. Recommending to the State Board for Vocational Education certain changes deemed necessary for a more effectual operation of the vocational education programs.

On March 27, 1969, the Georgia Advisory Council for Vocational Education was appointed by the Governor. The Council is composed of sixteen (16) members, representing specific areas as listed in the 1968 Amendments. The Council is composed of four (4) committees:

1. Professional Development
2. Council Reports and Publicity
3. Evaluation
4. State Plan Development

The Council is vitally concerned with the implementation of vocational education programs in Georgia.

In its first report, the Council encouraged the State Board for Vocational Education to establish a total developmental concept in all phases of the educational system. The Council report examined all phases of vocational education by grade levels and suggested certain changes that should be made.

In trying to become more involved with the total vocational program, the Council sponsored a series of 44 legislative meetings across the State. The purpose of these meetings was two-fold:

1. To inform teachers, legislators and other individuals of the content of the first council report, and to point out some other concerns of the Council; and
2. To provide an opportunity for local people to share their concerns with members of the Council.

As mentioned earlier, one of the main functions of the Council is to perform an evaluation of vocational education programs. The Georgia Council, in cooperation with the University of Georgia, is currently in the process of developing a system for the evaluation. Input to the evaluation system has been made from the vocational staff at the state level, at the local level, and by members of the faculty of the University of Georgia.

CONCLUSION

In conclusion, I would like to say that Georgia has benefited considerably from the 1968 Amendments to the Vocational Education Act of 1963, and we believe that they have done much to move education in the right direction. We also believe that vocational-technical education must continue to be an integral part of the total program of education. I must work closer with general educators in a program of career development extending from the elementary level through the post-secondary schools. It must also provide programs for *all* kinds of people, in *all* kinds of communities, and for *all* kinds of occupations. The essence of our need is *urgency*, demanded by both the sociological and technological changes presently taking place throughout the nation. This is not the time to go backward, but *forward* in the direction so clearly indicated by the 1968 Amendments.

APPENDIX A

DEVELOPMENTAL VOCATIONAL CURRICULUM: KINDERGARTEN THROUGH ADULT

Grades K-6	7	8	9	10-11-12	12	13-14	Adult
World of work curriculum.	Program of education and career exploration [1].	6- to 12-week mini-prevocational courses.	1-year prevocational courses.	Preparatory courses in multioccupations.	Education or job placement.	Preparatory courses in specific occupations.	Preparatory and upgrading courses.
	Service............	Area I: Service health service, public service, personal service, food service.	Area I: Health and personal service, public service, food service.	Area I: paramedical personal service, public service, food service.	Job placement and followthrough service.	Practical nursing, medical lab. tech., cosmetology, law enforcement, food preparation.	Specialized training for a short- or long-term nature for upgrading or for entrance into new occupations.
Fuse career oriented activities into existing curriculum.	....	Area II: Home economics (related), clothing and textile, child care, home and institutional management, food and nutrition.	Area II: Home economics, related occupations.	Area II: Child care, clothing and textile,[2] institutional management.	Preparatory education in specific occupation through cooperative education, early or advance placement in postsecondary education, and specialized secondary labs.	Clothing construction and alteration, child development, home furnishing and equipment. Data processing, accountting, clerk-typist. Marketing management.	
	Business organizational.	Area III: Business office, data processing, business contract, management and finance.	Area III: office data processing. Area IV: sales and distribution.	Area III: office, data processing. Area IV: Sales and distribution.	....	Management and sales... Auto mechanics, commercial arts, carpentry, electrical tech.	
	Technology........	Area IV: Industrial arts (technology)	Area V: Transportation, communication, construction, manufacturing.	Area V: Transportation,[2] graphic arts, construction,[2] drafting and design, metal working, electronics, electromechanical [2].		Instrumentation. Drafting and design. Machine shop. Electrical appliance.	
	Outdoors, expression of ideas.	Area V: Agriculture and natural resources, production, horticutlure, agri-business, forestry.	Area VI: General agriculture.	Area VI: Production, agriculture, horticulture,[2] forestry recreation and wildlife, agri-business,[2] ag-mechanics.[3]		Farm equipment. Agrimarketing. Forest harvesting technology. Ornamental horticulture.	
			Area VII: Environmental control occupations.	Area VII: Environmental control occupations. Area VIII: Cooperative education.		Pollution control technology.	

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[1] Schools that cannot implement this program must offer an acceptable alternative.
[2] Sales would be offered as an option for each course with asterisk.
[3] Ag-mechanics and transportation will not be duplicated in the same school.

The desired student goals of this career development program at each education level are set forth as follows:

Grade K–6: Student acquires positive attitude toward work, school, and increased knowledge of self in relationship to work.

Grade 7: Student makes tentative choice of broad occupational areas or of several occupational clusters for further exploration.

Grade 8: Student makes specific choice of occupational cluster for in-depth exploration and for acquiring employability skills.

Grades 9 or 10: Student makes choice of occupational cluster for entry-level job preparation and for further exploration.

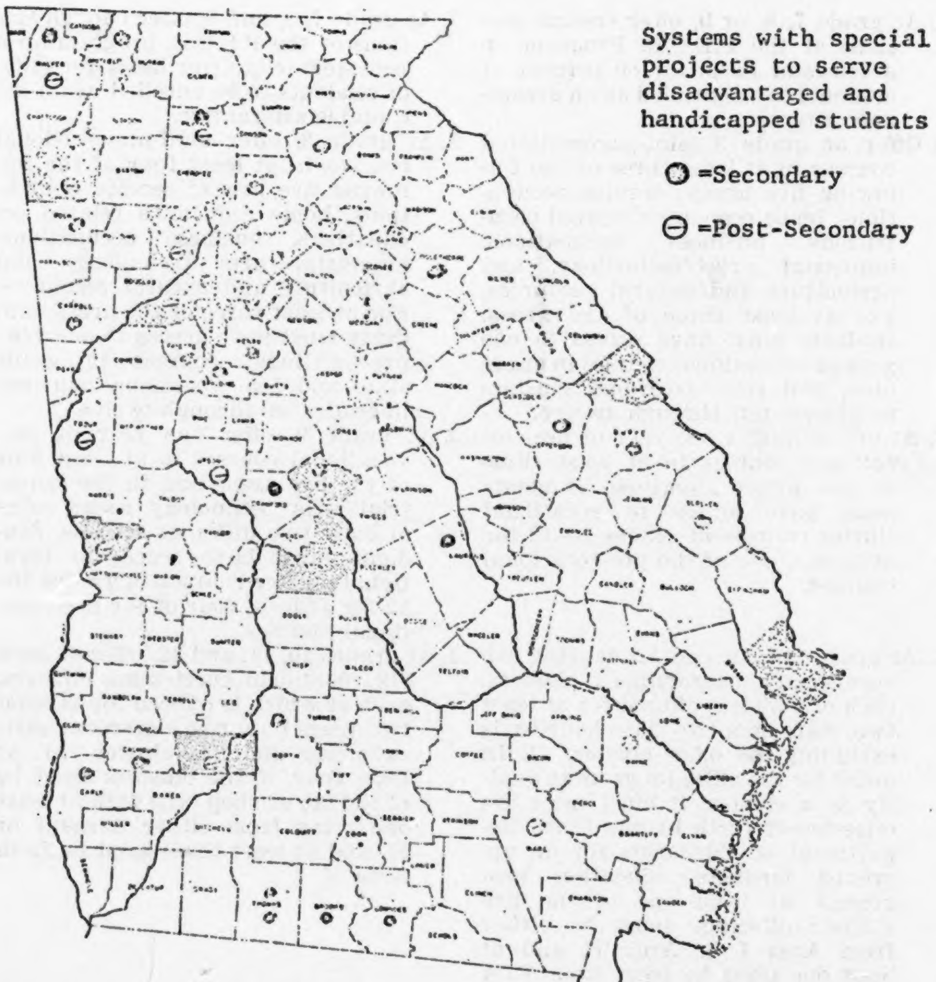
Grades 10–12: Student prepares for and satisfactorily enters an entry-level job, or seeks further education and/or job preparation.

Post-Secondary: Student prepares and satisfactorily enters a specific technical, skils, or subprofessional occupation.

Adult: Student prepares for and satisfactorily enters a new occupation or updates and upgrades competence in existing occupational field.

APPENDIX B

GEORGIA ADA IN 1974-75 IN GRADES 8-12, BY COUNTIES


Systems with special projects to serve disadvantaged and handicapped students
⊙ =Secondary
⊖ =Post-Secondary

County shade	Number of counties	ADA in grades 8-12 in 1974-75 per county	Percent of total ADA in grades 8-12 in 1974-75
▓	12	5,000 and over	50%
░	27	2,000 - 4,999	21%
▒	33	1,200 - 1,999	13%
	87	0,000 - 1,199	16%

APPENDIX C

CRITERIA TO BE MET BY SCHOOLS RECEIVING A GRANT AWARD TO CONDUCT SPECIAL PROJECTS TO SERVE THE DISADVANTAGED AND HANDICAPPED

SCHOOLS WITH FEWER THAN 1000 STUDENTS IN GRADES 9 THROUGH 12	
1. At grade 7, 8, or 9, offer enough sections of the P.E.C.E. Program on a semester basis for 80 percent of students to be enrolled as an acceptance alternative.	1. At grade 7, 8, and 9, offer enough sections of the P.E.C.E. program on a semester or quarter basis for 80% of students to be enrolled as an acceptable alternative.
2. Offer at grade 8 mini-prevocational courses in at least three of the following five areas: service occupations, home economics related occupations business occupations, industrial arts technology, and agriculture and natural resources. For at least three of the areas, students must have access to one year pre-vocational courses in grade nine, and two vocational clusters in grades ten through twelve.	2. At grade 8, offer mini-prevocational courses in at least four of the following five areas: service occupations, home economics related occupations, business occupations, industrial arts technology and agriculture and natural resources. For at least three of the areas, students must have acecss to one year pre-vocational courses in grade nine, and two vocational clusters in grades ten through twelve.
3. At grade 9, offer one year of pre- vocational courses in at least three of the areas identified. Students must have access to vocational cluster courses in grades 10–12 for at least three of the pre-vocational courses.	3. At grade 9, offer one year of prevocational courses in at least four of the five areas and in the industrial arts technology areas offer at least two different courses. Students must have access to vocational cluster courses in grades 10–12 for at least four of the pre-vocational courses.
4. At grades 10, 11, and 12, at least five vocational curriculum clusters, each of which is offered for at least two years on a two class hour basis excluding the office cluster. (1. In order for the office program to qualify as a cluster, it must meet the criteria set forth by the State Department of Education for an approved business education program.) At least one of the five cluster offerings must be either from Area I or Area II and at least one must be from Area V. A cooperative program may be counted as one of the five clusters.	4. At grades 10, 11, and 12, offer at least six vocational curriculum clusters, each of which is offered for at least two years on a two classroom basis excluding the office cluster (1). At least four of the clusters must be of the lab or shop type with at least one being from either Areas I or II, and at least three must be from Area V.

HAWAII

State Director—Samson S. Shigetomi

Vocational Education in Hawaii

BACKGROUND INFORMATION

Each state develops a system which meets its specific requirements. In Hawaii, the Department of Education is responsible for programs between grades K to 12, and the University of Hawaii administers all public post-secondary programs. Each state agency operates a statewide system, and there are no local school districts as found in most of the Mainland states.

Vocational education at the secondary level is designed to increase the individual's options—to be employed at entry level jobs, to move toward occupational specialization at one of the community colleges, or to continue to prepare for one of the professions. The general strategy is to treat preparation for a vocation as a continuum in which the primary and secondary schools provide the most basic skills needed for entry level employability, training or retraining, while more specialized occupational preparation takes place in community colleges, on-the-job, or in other post-high school situations.

The Department of Education provides experiences in clusters such as business, personal/public services, food services, electricity/electronics, construction and civil technology, mechanical, health, and technical graphics. Figure 1 illustrates how the vocational clusters in the high schools are articulated with programs in the community colleges.

POST-SECONDARY VOCATIONAL EDUCATION

Introduction

Hawaii, up until June, 1964, provided vocational-technical education through its five technical schools, which were administered by the State Department of Education. However, with the passage of Act 39, Session Laws of Hawaii 1964, the University of Hawaii Board of Regents was authorized to establish community colleges in the State of Hawaii and to include four of the five existing technical schools in this development. As a result of the mandate, one of the technical schools was exempted but in July, 1969, became part of the University of Hawaii when Act 166, Session Laws of Hawaii 1969, became effective.

In 1968–69, Leeward Community College opened its doors for the first time so that now there are six community colleges offering vocational programs and services. The Hawaii State Legislature recently approved the funds to plan for two additional community colleges to be built on the Island of Oahu.

Employing this year's enrollment figures, the ratio of occupational education majors to transfer education majors at Honolulu Community College is 80:20, at Kapiolani Community College is 77:23, at Kauai Community College is 72:28, at Maui Community College is 52:48, at Hawaii Community College is 100 percent vocational, and at Leeward Community College is 15:85.

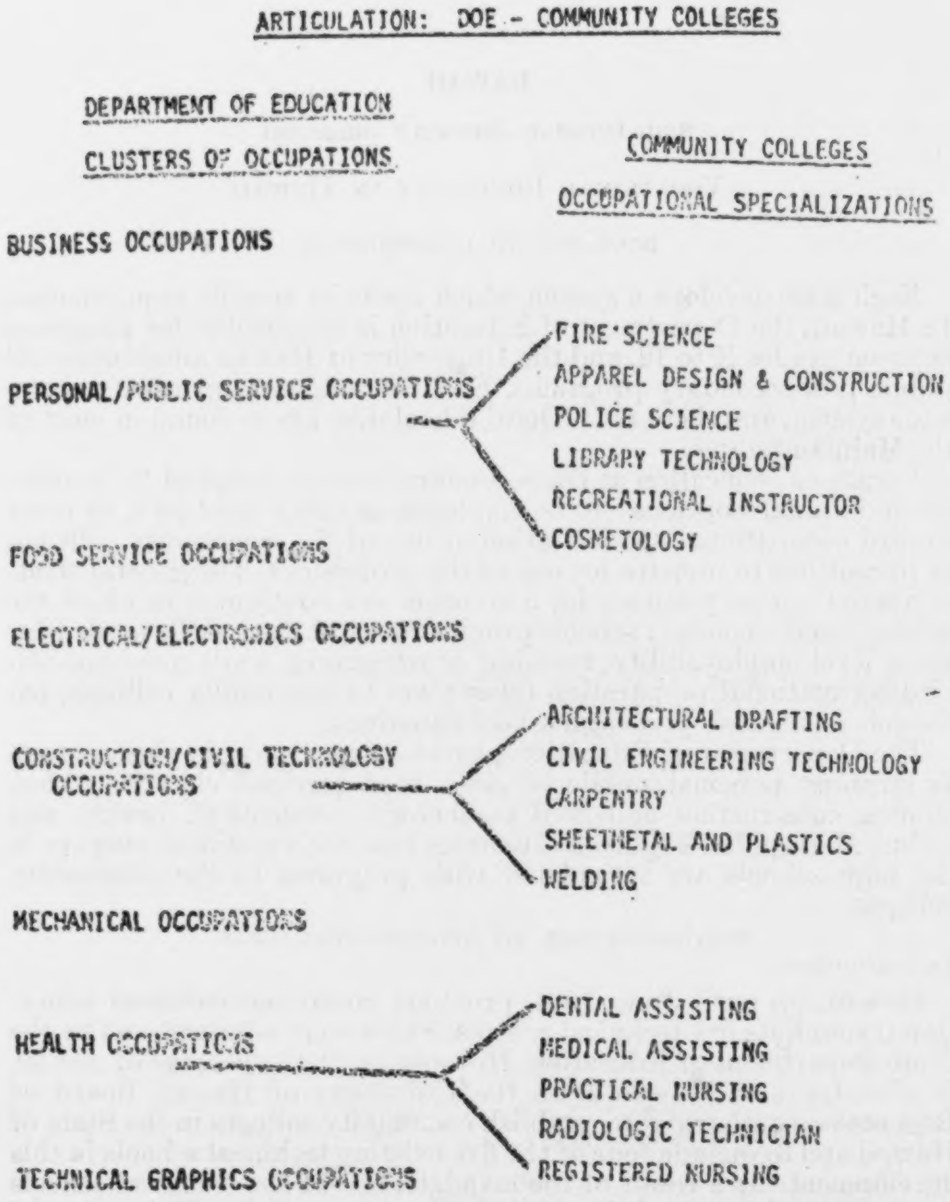

ARTICULATION: DOE - COMMUNITY COLLEGES
DEPARTMENT OF EDUCATION
CLUSTERS OF OCCUPATIONS
COMMUNITY COLLEGES
OCCUPATIONAL SPECIALIZATIONS
BUSINESS OCCUPATIONS
PERSONAL/PUBLIC SERVICE OCCUPATIONS
FIRE SCIENCE
APPAREL DESIGN & CONSTRUCTION
POLICE SCIENCE
LIBRARY TECHNOLOGY
RECREATIONAL INSTRUCTOR
COSMETOLOGY
FOOD SERVICE OCCUPATIONS
ELECTRICAL/ELECTRONICS OCCUPATIONS
CONSTRUCTION/CIVIL TECHNOLOGY OCCUPATIONS
ARCHITECTURAL DRAFTING
CIVIL ENGINEERING TECHNOLOGY
CARPENTRY
SHEETMETAL AND PLASTICS
WELDING
MECHANICAL OCCUPATIONS
HEALTH OCCUPATIONS
DENTAL ASSISTING
MEDICAL ASSISTING
PRACTICAL NURSING
RADIOLOGIC TECHNICIAN
REGISTERED NURSING
TECHNICAL GRAPHICS OCCUPATIONS

FIGURE 1 The Department of Education Vocational Education Clusters of Occupations are Articulated with Programs in the Community Colleges.

Program Development and Accomplishment

The "Open Door" policy of the community colleges provides opportunities for students of widely varying levels of intelligence, aptitude, capability, aspiration, and interest. There are over 50 occupational associate degree programs and 48 certificate of achievement programs offered in the two-year colleges for day-time and extended day students. (See Appendix A for list of programs being offered by the various community colleges.) Figure 2 shows the day and extended day credit enrollment growth patterns for the community colleges from the time to technical schools were transferred to the University. It is important to note that vocational education enrolls more students than liberal arts and that the occupational programs continue to show healthy increases. Although the majority of the students were residents of the State, the programs also attracted a number of students from the Mainland and over ten foreign countries.

Statisticians perhaps will be disturbed by the relatively large category—Special and Unclassified; but this group reflects one of the virtues of community colleges. Early admissions to vocational and liberal arts programs from high schools, housewives who want one course, working people who wish to explore an area in liberal arts or additional training in their field of employment are all legitimate unclassified students.

In addition to the 4,647 students enrolled in credit courses, Figure 3 shows 4,081 students enrolled in non-credit evening courses this year. Apprentices comprise over half of the evening non-credit enrollment.

When community colleges cannot justify a training program due to low enrollments, lack of equipment or facility, or the need for a category of workers is a temporary one, the education institutions have initiated cooperative education programs.

The public two-year institutions also cooperate and participate in federally subsidized programs such as New Careers, Manpower Development and Training, Model Cities, and Work Incentive Program.

The colleges were also shown how to have diversity of programs through cooperative education. For example, a campus offering only architectural drafting was told to have its instructor identify the common elements in mechanical, civil, and electrical drafting. Once the commonalities have been identified, the next step is to develop core courses. Students taking and finishing the core courses can then decide on the alternatives:

1. Specialize through cooperative education.
2. Take specialization courses in community colleges.
3. Enter into apprenticeship.

Federal funds earmarked for cooperative education under Part G of the Act helped tremendously to boost the cooperative enrollment in the post-secondary institutions from 68 to aprpoximately 273 this year. The Federal funds also enabled the State to contract with a consultant, Dr. Gordon Law, to assist cooperative education coordinators of the various colleges to overcome the problems they encountered and to assist them in increasing the number of students who can be served through cooperative education.

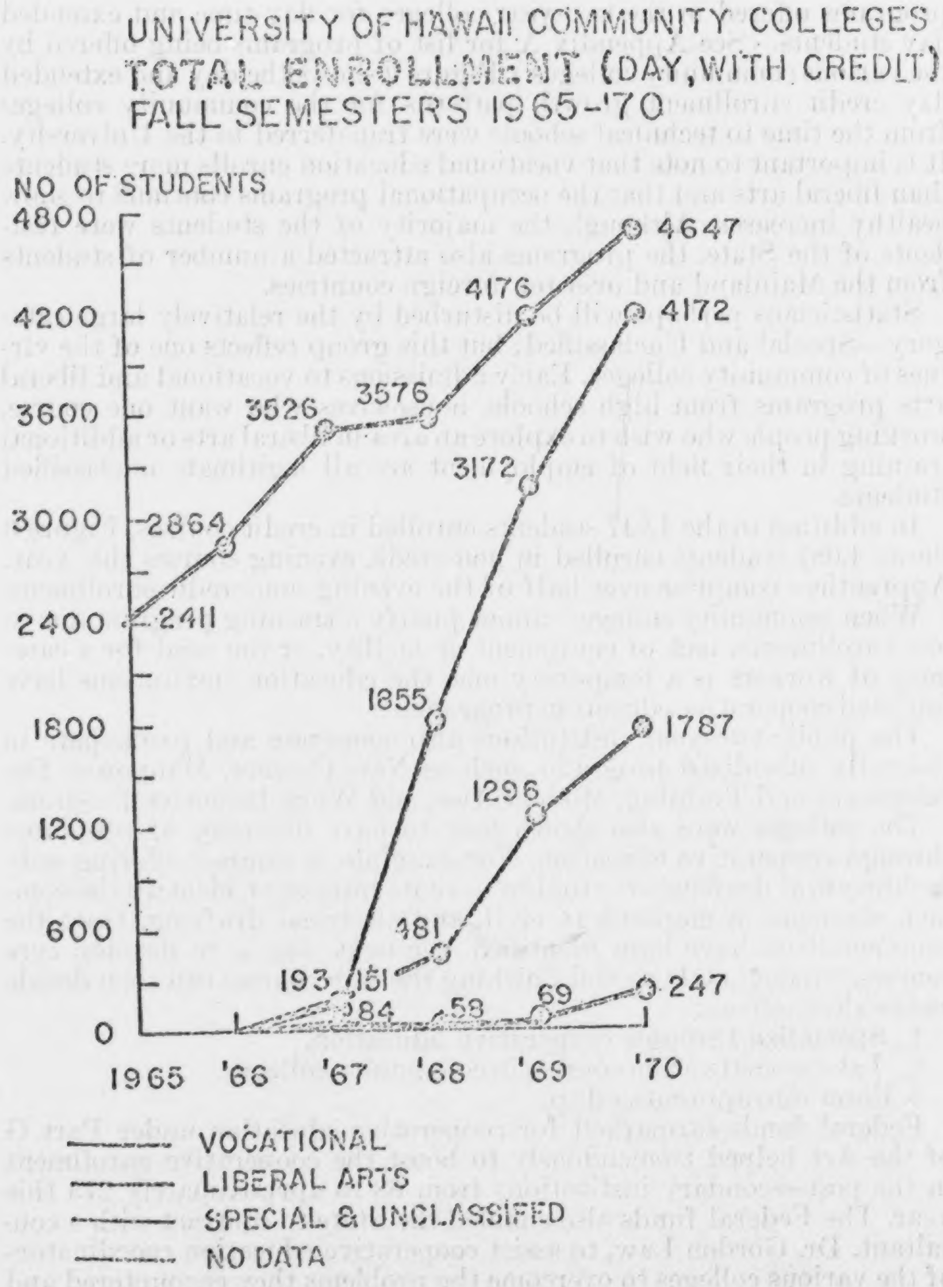


FIGURE 2.. Day and Extended Day Enrollment in the Community Colleges.

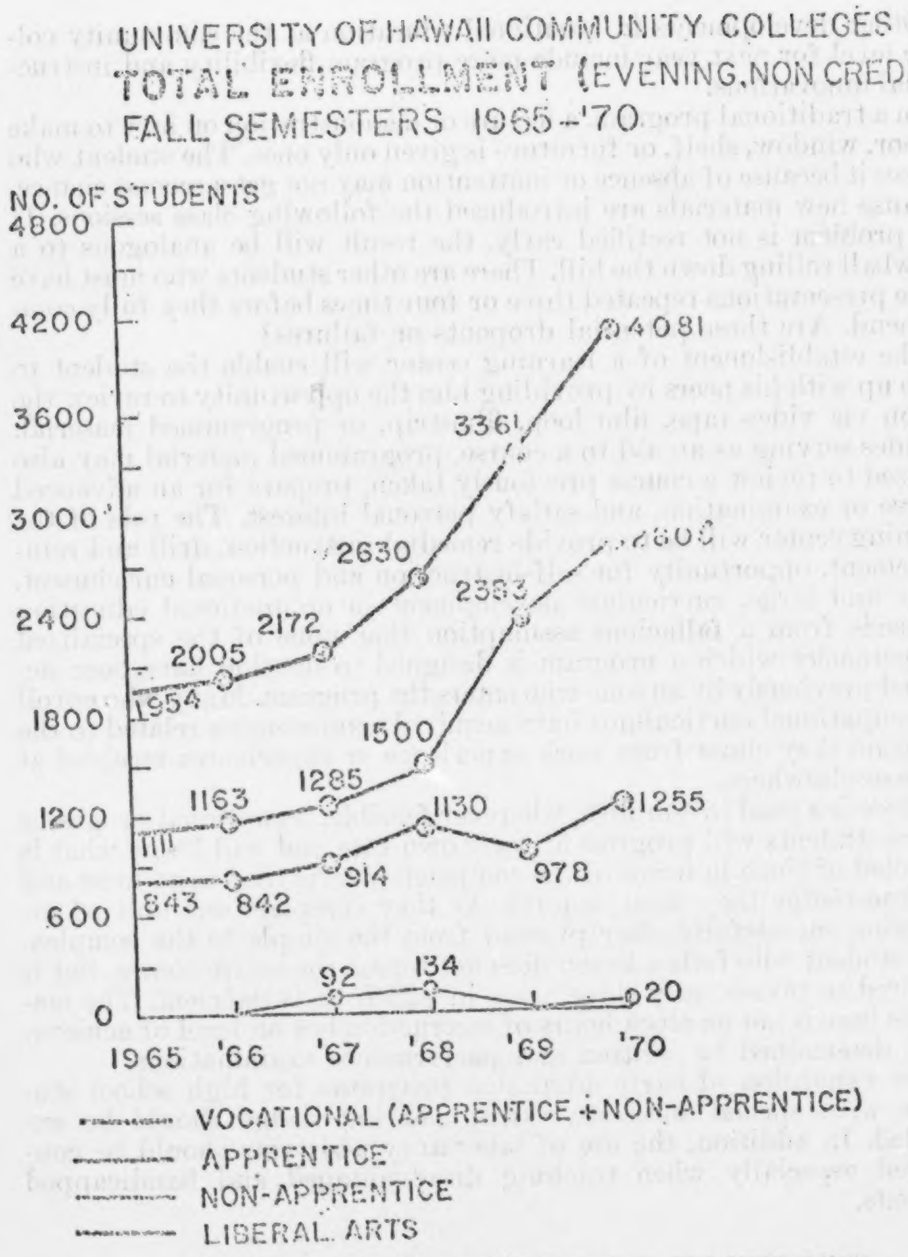


FIGURE 3. Evening Non-Credit Enrollment in the Community Colleges.

Other developments in vocational education at the community college level for next year include more program flexibility and instructional innovations.

In a traditional program, a lecture or demonstration on how to make a door, window, shelf, or furniture is given only once. The student who misses it because of absence or inattention may not get a second chance, because new materials are introduced the following class sessions. If the problem is not rectified early, the result will be analogous to a snowball rolling down the hill. There are other students who must have some presentations repeated three or four times before they fully comprehend. Are these potential dropouts or failures?

The establishment of a learning center will enable the student to keep up with his peers by providing him the opportunity to review the lesson via video tape, film loop, filmstrip, or programmed material. Besides serving as an aid to a course, programmed material may also be used to review a course previously taken, prepare for an advanced course or examination, and satisfy personal interest. The role of the learning center will be to provide remedial instruction, drill and reinforcement, opportunity for self-instruction and personal enrichment.

By and large, curriculum development in occupational education proceeds from a fallacious assumption that none of the specialized competencies which a program is designed to develop have been acquired previously by anyone who enters the program. Many who enroll in occupational curriculums have acquired competencies related to the program they chose from work experience or experiences received at home or elsewhere.

There is a need to establish, wherever feasible, occuptional programs where students will progress at their own rate and will know what is expected of them in terms of the competency level they must meet and the knowledge they must acquire. As they complete one unit of instruction successfully, they proceed from the simple to the complex. Any student who fails a lesson does not repeat the entire course, but is required to review only those areas in which he is deficient. The emphasis here is not on clock hours of instruction but on level of achievement determined by written and performance examinations.

The expansion of early admission programs for high school students with special interests, skills, and knowledge should be expanded. In addition, the use of laboratory assistants should be considered especially when teaching disadvantaged and handicapped students.

EDUCATION FOR THE DISADVANTAGED AND HANDICAPPED

Although there are several pockets of poverty throughout the State, the Kalihi-Palama and Waianae-Nanakuli areas include the largest number of families with annual incomes of $4,200 or less, highest unemployment rate, and greatest percentage of high school dropouts.

Secondary Level

At the secondary level, there are two programs designed for students with special needs. The Occupational Skills Program is for the handicapped, while the Pre-Industrial Preparation Program is for the disadvantaged students.

Under the Pre-Industrial Preparation Program, occupational experiences planned for the disadvantaged student are identical to those of the regular student, except that the former uses his occupational experiences as the vehicle for also learning his basic academic knowledge and skills by correlation.

The Occupational Skills Program is designed for individuals identified as learners with limited abilities, such as the mentally retarded educables and some of those with learning disabilities and borderline cases.

This program basically is for job exploration and skill development in performing simple and specific job tasks belonging to clusters of occupations which have been determined to be those which offer employment opportunities for these students. These simple job tasks are those which are performed under supervision and are repetitious in nature. For instance, in the food service occupations, busboys and dishwashers perform simple, routine tasks; but it is important that these tasks are done well and fast insofar as the food industry and the public are concerned. The development of job skills takes place in simulated classroom situations and on-the-job within industry. It is also part of this program to help these limited ability learners realize that appearance, conduct, and attitude play a definite role in employment.

A summary of the secondary schools' achievement toward serving disadvantaged and handicapped persons is shown below:

Objectives	Fiscal year 1969–70				Fiscal year 1970–71			
	Outcome sought	Percent	Outcome achieved	Percent	Outcome sought	Percent	Outcome achieved	Percent
DISADVANTAGED								
1. To increase the number and percentage of disadvantaged population (by level) enrolled in vocational education	489	15	[1] 489	15	689	22	[1] 740	24
2. To increase the number of instructional programs	5	--------	[1] 14	--------	14	--------	[1] 23	--------
3. To increase the number of students enrolled in cooperative education programs	168	--------	[2] 180	--------	180	--------	[3] 312	--------
4. To increase the number of students enrolled in work-study programs	200	--------	[2] 136	--------	405	--------	N.A.	--------
HANDICAPPED								
1. To increase the percentage of handicapped population (by level) enrolled in vocational education	173	9	196	10	324	18	[4] 578	
2. To increase the number of instructional programs for handicapped students	16	--------	21	--------	21	--------	[3] 39	--------
3. To increase the number of students enrolled in cooperative programs	22	--------	37	--------	49	--------	N.A.	--------

[1] Excluding consumer and homemaking students.
[2] Late funding.
[3] Preliminary.
[4] Preliminary duplicated account.

Post-Secondary Level

The role of community colleges is not merely to serve the post-secondary student but to meet the needs of the adult, apprentice, and students with special needs whose handicaps prevent them from succeeding in the regular occupational programs. The campuses must afford all students from the educationally handicapped to the brightest the opportunity to prepare for jobs from the comparatively simple to the most complex, and they must expand their services by preparing untrained, unemployed, and underemployed persons to fill positions which remain unfilled in our affluent society.

A three-prong approach has been launched by the community colleges to assist the disadvantaged students. The first method is the development of an early admission program. This program enables students with special interests, aptitudes, and knowledge to enroll in post-secondary institution courses and receive community college credits upon successfully completing the course. The near dropouts are identified by high school teachers and counselors and referred to the community colleges for acceptance by the principal. Approximately 55 students were enrolled in early admission vocational programs in fiscal year 1969–70 and 54 high school students in fiscal year 1970–71. Late funding in fiscal year 1969–70 was one of the reasons why this program was slow to develop.

The second prong attacked the learning deficiencies of the educationally disadvantaged persons. Developmental programs in reading and writing, improvement of study skills, and the individualizing of instruction were some of the projects which were approved by the Office of the State Director for Vocational Education for fiscal year 1970–71. Due to late funding in fiscal year 1969–70, implementation of the colleges' plans to assist the disadvantaged was limited to offering remedial English and math courses.

Some of the notable achievements in fiscal year 1970–71 include:

1. Substantial and significant gains were achieved in vocabulary, comprehension, and rate of reading. Students averaged a total gain of 2.7 years in reading achievement over a four-month instructional period. Three hundred eighty disadvantaged students participated, and only forty-five dropped out during the semester.

2. Significant gain in excess of 15 percent for both comprehension and speed was noted for another group of 115 out of 135 disadvantaged students who completed a different reading course.

3. A career orientation workshop was conducted to enable disadvantaged students to make better and more realistic vocational decisions commensurate with their aptitudes and interests.

4. A sequential program of study for basic mathematics was offered to 150 students, and 77 percent completed the program. This special project enabled students to proceed individually throughout the course.

The third prong focused on cooperating with other agencies involved with serving disadvantaged and handicapped students. The community colleges offered their services to Model Cities, the Concentrated Employment Program, the Manpower Development and Training, and the Work Incentive Program. The New Careers Program is a good example that the disadvantaged can be helped. While many of the federally subsidized programs have poor retention and job placement records, New Careers boasts of an attrition rate of only 4%.

In fiscal year 1969–70, handicapped students were being served in the regular on-going programs, but no means of identifying and providing additional assistance were attempted because of late funding. In the following year, approximately $60,000 was spent at the post-secondary level to provide remedial instruction through tutorial services, tutors and interpreters for deaf students in auto body repairing and painting program, a central resource center, and to develop a ceramics program. Approximately 151 students took advantage of the above services.

A statewide workshop was conducted this year to better serve the students with special needs. Interested faculty and staff were invited to share the experiences of each college program and to keep abreast with new techniques and literature.

RESEARCH

Department of Education

Of the five items given priority for 1970, the Department of Education initiated the following three as part of the pilot programs implemented in the Fall of 1969. They are:

"Effective ways and means of working with the disadvantaged and handicapped persons."

> After a year of study and experimentation in five schools with programs for the handicapped and in three schools with programs for the disadvantaged, many effective ways and means were developed. The study will continue, but handbooks for both programs have been prepared to help other schools implement similar programs on the basis of the first year's experience.

"Evaluation of personnel and programs."

> As a result of this year's work in pilot programs, recommendations for program improvement have been made and will be acted upon before Fall.
>
> The Office of Personnel Services of the Department of Education is now in the process of revising the certification policies governing the teacher requirements for vocational instruction. Other program weaknesses which became evident after the evaluation was made through the involvement of many different people from all levels will be corrected and strengthened. Evaluation will continue, but the program guidelines which were developed as a result of evaluation are included in the handbooks for the respective programs.

"Families of occupational programs."

> All of the instructional programs offered in the pilot programs were of this type and will continue to be in the secondary school program.

Two of the five priority items concerned the development of a data bank. In cooperation with the community colleges, the vocational-technical education program of the Department of Education will participate in the VERIFY system of data collection beginning Fiscal

Year 1971. In view of the PPBS format that the Department of Education is now engaged in, the data bank is an absolute necessity.

University of Hawaii, Community Colleges

In 1969–70, only one research project was conducted. This project was on "Longitudinal Follow-up Studies of Students Attending Community Colleges."

It is generally recognized that one of the marks of a successful community college is observed in the institution's efforts to continually gather and utilize information about its students. Because the community college must be responsive to changing needs, because it must change continually and remain flexible, the community college, more than any other segment of higher education, must institute a process by which it constantly seeks to determine how effectively it is meeting the needs of those it serves. The student's experiences while enrolled in the college, and even after he has departed, is of primary concern to all those who are involved in the educational process. Whether or not the college is meeting its responsibilities to the community will be in large part measured by the success of the students who pass through its doors.

The only possible way for an institution to determine the effectiveness of its program and the relevancy of its objectives is through the "follow-up" study. Follow-up is defined here as "from the day the student enters the institution until, and even after, he withdraws, gains employment, or transfers to another institution."

The "Longitudinal Student Study" is the term we have established to define this research project. This term more aptly reflects the close interrelationship between on-campus experience and post-college life. It also clearly establishes the purpose of the project—which is the appraisal of student's goal attainment.

In fiscal year 1970–71, more research projects were planned and conducted. For example:

(*a*) Community Occupational Surveys have been completed for two rural county areas and are now in the process of summarization, analyses and publication. These surveys were conducted by the local community college in the County with technical assistance from the State Vocational Education Research Coordinator, who also coordinated inter-agency discussion and contributions toward the survey. These contributions consisted of occupational analyses assistance from the Hawaii State Department of Labor and Industrial Relations and data processing assistance from the Hawaii State Department of Planning and Economic Development. Advisory support was also rendered by the Hawaii State Commission on Manpower and Full Employment, which is also the Advisory Council on Vocational and Technical Education.

These occupational surveys are designed to provide current employment occupational distribution within industry groups and will be used to develop an area industry-occupation model approach to obtain occupational projections. The latter will be essentially based on industry projections provided by State Economic Planners and will be oriented on a PPBS rationale.

A third survey for another rural county is now being planned and will be conducted and coordinated in similar manner to the previous two. Together, the three Community Occupational Surveys are expected to provide the first real comprehensive occupational information for areas which are in the process of development and whose colleges require such information for vocational curricula planning which will be responsive to community needs.

(*b*) Student Follow-up Studies.—As a complement to the Community Occupational Survey, follow-up studies of graduates were also conducted. Together the two studies are expected to furnish information on occupational needs in the communities and occupational supply from the schools and to what extent they may or may not correlate.

(*c*) Development and Implementation of a Hawaii State Vocational Education Information System.—After a year of contracting a private package for State Vocational Education Information, we have embarked upon development of a Vocational Education Information System for Hawaii. Two components of the overall System are expected to be operational by the end of Summer. They are the Apprenticeship Record-Keeping and Reporting Component and the Vocational Education Master Course List. The latter standardizes and codifies the similar vocational course offerings among the colleges for purposes of data management. It is expected that the entire Vocational Education Information System will take at least two years to develop, test and implement satisfactorily.

(*d*) *Effectiveness and Economics of Providing Computer Science Programs to Post-Secondary Students and Adults.*—A PPBS format will be employed to determine the effectiveness of the present computer science programs offered at the community colleges. In addition, the research study will explore and evaluate the various alternative ways of providing instruction in computer science. Included as one of the alternatives is the possible contracting of services with private industry. It is anticipated that this research project will assist in establishing statewide policies as well as in identifying the best method of providing computer science programs.

INTRA-STATE DISTRIBUTION OF FUNDS

Hawaii's State Plan for Vocational Education lists the following general allocation of federal funds under Part B of the Act:

	Percent
Post-secondary	40
Secondary	10
Disadvantaged	15
Handicapped	10
Administration	15
Curriculum development	5
Adult	5

In addition to the 10 percent listed above, the secondary programs do receive all Section 102(b) funds, most of the disadvantaged and handicapped earmarked funds, practically all of the Consumer and Homemaking categorical funds, all work-study monies, and 50 percent of the set-asides for research, exemplary programs, and cooperative programs. In terms of the total federal fund allotment, the Department of Education receives 40 percent and the University of Hawaii—60 percent of the total.

Each year the allocation of federal funds is reviewed and is adjusted in terms of program plans. Both the Department of Education and the University of Hawaii must agree on the expenditure plan before it is submitted to the State Board for Vocational Education.

STATE ADVISORY COUNCILS

There are two advisory councils to the State Board for Vocational Education. The Vocational Education Coordinating Advisory Council was established by the State Legislature, while the Advisory Council on Vocational and Technical Education was established by the Governor as mandated in the Vocational Education Amendments of 1968, Public Law 90-576.

The latter group will be concerned mainly with evaluating present programs, services and activities; preparing and submitting an annual evaluation report to the National Advisory Council; and participating in long-range and annual program planning.

The Coordinating Advisory Council, on the other hand, is primarily interested in policies and procedures, the philosophy, goals, and objectives, and general administration and coordination of vocational-technical programs.

The evaluation of the State Advisory Council on Vocational and Technical Education was helpful, in that it identified the areas that needed improvement. The Commission on Manpower and Full Employment, which also serves as the State Advisory Council on Vocational and Technical Education, has also been helpful in recommending to the Governor and the State Legislature ways and means of improving and expanding vocational education.

On the other hand, the Coordinating Advisory Council's greatest contribution has been in removing obstacles and roadblocks which hinder the administration of vocational education programs, activities, and services.

IDEAS FOR IMPROVING FEDERAL LAW OR ADMINISTRATION OF VOCATIONAL EDUCATION

1. Federal funds should be provided not only to serve the educationally disadvantaged youth but also try to get at the source of the problem. Unless something is done at the beginning, there will always be educationally disadvantaged youth at the secondary and post-secondary levels. Hence, the present fragmentary efforts to serve them by various agencies may continue.
2. Greater emphasis should be placed on level of achievement rather than class attendance or hours spent in a particular training station.
3. The EPDA, Part F, doctoral fellowship awards should be awarded one to each state before allotting the remainder by population. This is especially true when there is no doctoral degree program in vocational education offiered in the state.
4. Hawaii should be given additional Federal funds to assist the Trust Territories, Guam, and American Samoa in the development of faculty and staff and vocational education programs.

APPENDIX A

POST-HIGH SCHOOL OCCUPATIONAL TRAINING OPPORTUNITIES IN HAWAII PUBLIC INSTITUTIONS, 1971–1972

(less than baccalaureate)

[Prepared and Distributed by: Occupational Information and Guidance Service Center]

[Key: ×=proposed; +=presently offered]

	Honolulu Community College	Kapiolani Community College	Leeward Community College	Department of Dental Hygiene, U.H.	Department of Technical Nursing, U.H.	Hawaii Community College	Kauai Community College	Maui Community College	Manpower Training (1)
OCCUPATION CENTERED DAY PROGRAMS, 1971–72									
Business programs:									
Accounting		+	+			+	+	+	
Account clerk						+			+
Business operations		+							
Clerical-bookkeeping		+	+				+		
Clerical-general clerical		+				+	+	+	+
Clerical-stenography		+	+				+		+
Data processing		+				×			
General business							+		
File clerk									+
General office training			+				+	+	+
Hotel front office clerk			×						
Mail clerk									+
Hotel midmanagement		+	×					+	
Hotel/resort operation						+			
Management			+						
Messenger									+
Merchandising midmanagement		+	×			+			
Office clerk training		×							
Receptionist									+
Salesmanship			×			+	+		
Salesclerk							+		
Secretarial science		+	+			+	+	+	
Stenography			+			+	+		+
Food programs:									
Food service, culinary arts		+	×			+			+
Food service, dining room		+	×			+			
Food service, management		+	×			+			
Health programs:									
Basic aide/clinic aide		×							
Dental assisting		+							
Dental hygienist				+					
Medical assisting		+							
Nurse aide									+
Practical nursing		+				+			+
Radiological technician		+							
Technical nursing					+			+	
Public service programs:									
Fire Science	+					+			
Library technology			+						
Police science	+					+	+	+	
Preschool technician			×						
Recreational instructor			+						
Human services	×							×	
Trade industry-technical programs:									
Aircraft mechanics	+								
Apparel design and construction						+		+	
Applied arts	+								
Architectural drafting	+		+			+	+	+	
Auto body repair and painting	+		×			+	+	+	+
Automotive mechanics	+		+			+	+	+	+
Carpentry/construction	+					+	+	+	
Commercial baking	+								
Cosmetology	+								
Diesel mechanics	+					+			
Electronics technology	+					+			
Engineering technology	+		×						
Fashion arts	+								
Heavy equipment maintenance and repair	+								
Industrial electricity	+					+			
Industrial technology						×		+	
Marine technology			+						
Metalworkihg (machine)	+					+	+	+	
Refrigeration and air conditioning	+								
Sheet metal and plastics	+					+		+	
Welding	+		×			+	+	+	+

[Key: ×=proposed; +=presently offered]

	Honolulu Community College	Kapiolani Community College	Leeward Community College	Department of Dental Hygiene, U.H.	Department of Technical Nursing, U.H.	Hawaii Community College	Kauai Community College	Maui Community College	Manpower Training (1)
OCCUPATION CENTERED EVENING PROGRAMS, 1971–72									
Other programs:									
College transfer (prebaccalaureate)	+	+	+			×	+	+	
Cooperative training	+		+					+	
Ecological and environmental technician			×						
General education	+	+	+			+	+	+	
Graphics arts			×						
Industrial education	+								
Maintenance technician			×						
New careers	+								
Warehouse checker/cashier								+	
Apprenticeship programs:									
Bricklaying masonry	+					+		+	
Carpentry	+					+		+	
Cement finishing	+					+			
Drywall application	+					+		+	
Electrical	+					+			
Floor laying	+					+			
Glazing	+					+		+	
Iron working	+					+		+	
Lathing	+								
Meat cutting						+			
Operating engineers	+					×			
Painting	+					+		+	
Plumbing	+					+		+	
Reinforcing steel	+					+			
Sheet metal	+					+			
Tapers	+					×			
Welding	+					+			
Business programs:									
Accounting		+	+			+		+	
Business data processing		+							
Clerical		+	+			+		+	
Machine shorthand I and II						+			
Secretarial science		+	+			+		+	
Food programs:									
Bartender training			×			+			
Cocktail waitress			×			+			
Cooks apprentice		+	×						
Food and beverage cost control		+	×						
Food service (culinary arts major)			×						
Food service (dining room major)			×						
Communications—Hotel management			×			+			
Organization and administration—Hotel management			×			+			
Trade industry-technical programs:									
Apparel design and construction						+		+	
Automotive mechanics	+		+						
Electronics technology	+					+			
Fashion arts	+								
Industrial electricity	+							+	
Metalworking	+								
Small engine repair	+							+	
Refrigeration and air conditioning	+								
Truck driving						×			
Welding	+							+	
Other programs:									
AHMA—Hotel management series						+			
Creative writing							+		
Gift wrapping						+			
Graphic arts			×						
Preschool nursery training						+			

IDAHO

State Director—Roy D. Irons

JUNE 5, 1971.

ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education, Congress of the United States, Washington, D.C.

DEAR CONGRESSMAN PUCINSKI: Reference is made to your letter of May 19 which was received in this office June 1. We appreciate the opportunity to provide information relating to progress made in vocational education in Idaho since 1968 in the areas of research, post secondary education, education for the handicapped and the disadvantaged, methods of intra-state distribution of funds, and contributions of the State Advisory Council.

RESEARCH

In 1968 the research coordinating unit for vocational education functioned through the University of Idaho under a USOE Grant and continued its operation through August of 1969 when the grant was terminated.

After the termination of the grant it was necessary to release the director of the RCU because of the lack of funds and the uncertainty of adequate funding for research.

By the time funding was known for the fiscal year 1970 it was too late to implement the RCU activities for that year. Since 1970, we have been confronted with a State personnel reduction movement and personnel position establishment problems which have made it impossible to hire personnel necessary to carry out a research coordinating unit effort as we would like to have. As soon as personnel restrictions are relaxed and Federal funding has stabilized to the point that we have some assurance of continuation of at least a base amount to carry on research activities, we plan to reactivate the RCU.

POST SECONDARY

When the new vocational education legislation was first initiated in 1963, Idaho had three post secondary area vocational-technical schools that provided limited offerings in occupational education in the semiskilled, skilled and technical occupations. The courses were generally in the areas of trades and industries. Idaho now has six post secondary area vocational schools geographically located to serve the major portion of the State's population. Five new buildings have been completed, three new buildings are under construction and four existing facilities have been remodeled. Three additional buildings are in the planning stages awaiting the availability of funds.

We could use $6,500,000 of Federal funds if they were made available for fiscal year 1972 for construction of new facilities at our area vocational schools at Twin Falls, Idaho Falls, Pocatello, and Boise. The need for the facilities and additional funds to meet other educational costs is great. We are presently operating our vocational programs totally in rented facilities scattered out in the cities of Idaho Falls and Twin Falls where two of the area vocational schools are located. The school at Idaho Falls was established by the State Legisture in 1969 and began operation July 1. 1969. $250,000 was appropriated through the State permanent building fund to acquire land and begin construction of facilities. A 53 acre site has been purchased and plans for a first phase construction of facilities are in the final stage for approval by the State Building Board. The area vocational school at Twin Falls was established in 1965 and is still operating in rented facilities at three locations. The quality of programs is very good, however, the identity and image of vocational education could be greatly improved with proper facilities. Land is available for location of the facilities on the campus of the College of Southern Idaho. $250,000 of State Building Funds are currently being used to construct a first phase vocational building on the campus of the College of Southern Idaho.

On April 16, Phase II and a III phase construction program at the Area Vocational-Technical School, Idaho State University, Pocatello, Idaho was completed and dedicated. The building was financed through the State Permanent Building fund for approximately $1,000,000.

Enrollment in post secondary vocational-technical programs have increased as increased funds have been made available to provide additional facilities and services. In fiscal 1970, there were 2,445 enrolled in post secondary programs as compared to 1,900 in fiscal 1968, an increase of 29 percent. 1971 enrollments will be approximately 2,900.

Approximately 60 percent of vocational funds are expended for post secondary vocational-technical programs.

On-going programs have been and are being upgraded with new equipment and teaching aides as funds become available. New occupational programs in agriculture, health, business, home economics occupational, industrial, and technical have been implemented. The schools are able to provide courses in adult basic education, employment orientation and pre-vocational education to assist the disadvantaged and handicapped to overcome their problems in order that they might succeed in either regular or special programs of vocational education with each person having an opportunity to seek his or her level of training in the occupation in which they have the interest, aptitude and ability. The schools accepts without reservations, persons referred by other agencies such as Manpower, Vocational Rehabilitation, etc. We feel that Idaho has made tremendous gains in vocational occupational education at the post secondary level, however much remains to be accomplished.

Many students need financial assistance to attend the post secondary area vocational-technical schools. The Vocational Work Study Program could be of tremendous service to youth from low income families if it were adequately funded with sufficient lead time to guarantee financial assistance when it is needed.

DISADVANTAGED AND HANDICAPPED

Vocational education has always had great empathy for the disadvantaged and handicapped. We are proud that we have been able to meet some of the vocational and educational needs. Traditionally the pushout, dropout, disadvantaged, and handicapped have been enrolled in the regular programs. We try, whenever possible, to carry on this tradition to keep them in the mainstream and to provide the individual instruction, supervision, or special services needed to help them succeed in the regular program. When we have to set up special needs classes, we try to do so in such a way that the students are not branded and so they do not create a stigma against the class. Prior to the 1968 amendments special effort was not made to record the special needs students separately. In fiscal year 1970, three programs for the handicapped enrolled twenty-seven students. Nine programs are currently operating with ninety-seven enrolled. Five programs for the disadvantaged operated in fiscal 1970 with one hundred thirty-seven students enrolled. Currently eighteen programs are operating with five hundred thirty-nine enrolled.

In 1970, one exemplary program operated with twelve students enrolled. Six programs have been funded in fiscal 1971 with forty-two enrolled. Two of the programs are in the implementing stage with enrollment beginning next fall.

INTRA-STATE DISTRIBUTION OF FUNDS

Post secondary programs are funded 100 percent of the costs as identified in budgets approved by the State Board for Vocational Education and through appropriation by the State legislature. Manpower needs, job opportunities, vocational education needs are considered in the approval of programs.

Secondary, regular part B, programs are funded on a formula basis which weights the manpower needs, job opportunities, vocational education needs, relative ability to pay, and excess costs factors as specified in the 1968 amendments and in addition weights the quality of the program. Pages 97a to 97d from our State Plan, Part I, Appendix L, illustrate the formula for the distribution of funds to the secondary schools for vocational programs conducted under Part B of the 1968 Act.

Programs operated under Sec. 102b, Sec. 122a (4) A & B, Parts C, D, and G are funded up to 100% depending upon the schools ability to contribute.

CONTRIBUTIONS OF STATE ADVISORY COUNCIL

The state advisory council is active and making valuable contributions to vocational education. The council's evaluation of vocational education in the State has served to stimulate and promote vocational education in areas needed and has had a marked affect upon changing attitudes of legislators, educators, and the general public toward vocational education.

The council has appeared befor the State legislature joint finance committee, and the house education committee in behalf of vocational education. The council has acted advisory to the State Board for Vocational Education on many matters pertaining to vocational education including but not limited to budget, state plan, program evaluation, and public information.

FEDERAL LAW AND ADMINISTRATION OF VOCATIONAL EDUCATION AND MANPOWER PROGRAMS

We feel strongly and recommend—

That education, and training components of manpower programs, should be the role of educators;

That education authority and activity *not* be diffused to non educational agencies;

That legislation be enacted to place all occupational education under vocational education;

That a Bureau of Vocational Education be established in the U.S. Office of Education to administer all occupational education;

That the Bureau of Vocational Education be given proper authority, funding, and staffing to carry out its duties and responsibilities;

That vocational education be funded and given consideration commensurate with the needs for vocational education;

That advance funding be adopted to provide for sound program planning and operation;

That flexibility in use of funds be authorized to enable the adaptation of programs to meet the needs and circumstances of people;

That the educational and training component of any manpower program be administered by and the responsibility of vocational education; and

That career information be a part of and incorporated in all elementary and secondary education.

The biggest problem facing vocational education in Idaho today is the lack of funds to provide programs to meet the needs of people. Full and advanced funding of the 1968 Act would do much to alleviate this problem.

It is hoped that this letter will provide some information and insight into our vocational program activities. If further information is needed please let us know.

We appreciate your interest and efforts in behalf of vocational education.

Sincerely,

Roy D. Irons, *State Director.*

ILLINOIS

State Director—Sherwood Dees

RESEARCH AND EXEMPLARY ACTIVITIES

The Vocational Education Act of 1963, Public Law 88–210, Section 4(c) stressed the importance of and the need for research in vocational education by making provisions for the establishment of Research Coordinating Units at the state level. The actual invitation for establishment of units was not extended to each state until 1965. Twenty-four states accepted the invitation and were approved for funding prior to July 1, 1965. Illinois was one of the original twenty-four.

The Illinois Research and Development Unit is presently involved in the funding and administration of three broad major projects categories. These three broad categories are:

1. *Research Activities* are those activities that center upon either pure or basic research. They are designed to aid in planning and "decision-making" at the state and local level.
2. *Developmental Activities* involve both the design and implementation of instructional materials and curriculum materials. Developmental activities always include an implementation phase in some local school situation.
3. *Exemplary Activities* funded by the Research and Development Unit are based on successful research and development project results. They are geared toward providing proven innovative methods of reaching students with academic, social, economic, or other handicaps.

Planned change, strongly based on research and development activities, is far superior to haphazard action for change sake alone. A workable model of research, developmental, and exemplary activities is utilized to achieve maximum results in meeting individual and manpower needs. Direction is the key. Priorities are assessed to provide direction and to insure that allocated funds are expended for the best possible reasons. Unit priorities are based on mandates of the acts, advisory councils, and present trends in the field. As an example, one has only to look at the priorities for the Research and Development Unit for fiscal 1972. There are four goals designed to assure planned change.

There are specific objectives designed to achieve these goals. The objectives emphasize performance. They are terminal criterion fully necessary when planning a systematic change of programs and/or policies. The unit budget, programs, and duties of staff are all defined as a result of systematic planning. A *managed* system for research, developmental, and exemplary activities is advocated.

Each year, since its inception in 1965, the Research and Development Unit has placed emphasis on implementation of innovative research ideas. The research effort for vocational education in Illinois does not rely entirely on federal support. Since 1965 some $6,281,085 have been spent for research, developmental, and exemplary projects in Illinois. Support of the Illinois RCU since 1965 by funds from USOE have totaled $1,394,501. This amount has generated some $2,696,956 in state support and an amazing $2,189,622 in local support. Almost 34.5% of the total budget in the Research and Development Unit since 1965 has come from local sources. Local support is clearly evident. The research community is committed to research as it relates to vocational education.

In Fiscal 1971, for example, the amount allotted to each state under Part C of the "1968 Amendments to the Vocational Education Act of 1963" was for the first time the full 10 percentum of the amount appropriated under the title. During the first half of Fiscal 1971, of $742,626 dollars spent in State/Federal monies for research, developmental, and exemplary projects almost $550,000 in additional money was generated by local project personnel.

The research, developmental, and exemplary project results are significant. At this point, the results of research in vocational education in Illinois show that there has been an extensive, on-going program of innovative developmental procedures and methods leading to measured change in the vocational education curriculum; an upgrading of educational leadership in the establishment of the RCU as a focal point for vocational education research in Illinois; additional intra-agency and inter-organizational coordination; and an improved system of dissemination of new ideas and research results.

The role of the Research and Development Unit as a "change agent" for innovative activities in vocational education is illustrated by the following examples:

1. *Project CVIS* (Computerized Vocational Information Service):
   - A. The only successful computerized vocational information service in the United States and it was developed by high school level personnel.
   - B. Recognized by State, National, and International Governments as one of the most innovative projects in the world of education.
   - C. Project CVIS serves as an illustration of the kind of innovation that can be developed and implemented when local resources and enthusiasm converge with State and Federal funding.
2. *Project A.B.L.E.* (Authentic Basic Life-Centered Education):
   - A. A career education program placing emphasis on the "World of Work" as an organizing center for the curriculum.
   - B. Clearinghouse for ideas and materials to present occupational information to children.
   - C. Provides clinical assistance in planning lessons and units at school sites.
3. *Career Development for Children Project:*
   - A. Published and disseminated the booklet entitled "Facilitating Career Development: An annotated Bibliography." Over 3.000 copies distributed in Illinois, nationally, and internationally.
   - B. Developed curriculum guides and supporting instructional materials for career development.

The list can go on. The purpose here is to describe the responsiveness of these types of activities to local needs. Through Part C of the "1968 Amendments to the Vocational Education Act of 1963," the states can and are providing local school districts with the impetus to fashion and shape vocational education into a valuable educational tool.

The Illinois Division of Vocational Technical Education, through the Research and Development Unit, has effectively utilized the Part D Exemplary funds allocated to the State of Illinois.

In keeping with Part D (Section 141) of the Vocational Education Act amended in 1968, exemplary projects have provided visibility to outstanding research and developmental project results. Programs include orientation and exploration, development of work habits and attitudes, acquisition of job skills, and the improvement of teacher competencies. These exemplary projects included all students, but special emphasis was definitely given to non-college bound youth and more particularly to youth with academic, socio-economic, or other handicaps.

One such project is the Airframe-Air Power Mechanics Program located in Cahokia and E. St. Louis. This project was unique to the State of Illinois in that for the first time high school students were receiving vocational instruction at a private college (Parks Air College) and a public junior college (Belleville Junior College).

Another example is the Preparedness Program located at Parkland Junior College, Champaign, Illinois. This project was an attempt to involve the educationally and economically disadvantaged young adults in the community college. These young people are academic casualties rather than intellectual casualties. The ultimate goal of the Preparedness Program was the adequate preparation of the disadvantaged student to participate successfully in the regular program of his choice at Parkland Junior College. This was possible by convincing the student that he is important, worthy, and has the right to participate fully in the educational experience.

These are just two examples of the far reaching effects exemplary monies have had on vocational education in the State of Illinois.

A new avenue for meaningful change was implemented through Part D funds by utilizing the demonstration center concept. Through the exemplary demonstration center concept we were able to bring hundreds of teachers, vocational directors and administrators to programs that provide new approaches in vocational education.

One of our objectives for exemplary (Part D) funds was the identification and highlighting of effective on-going or "example-ary" programs which could serve as models for improving occupational education.

These demonstration centers highlighted operational programs which exemplify new concepts in vocational education, or new approaches to problem areas in vocational education.

Through exemplary money, projects have established at all levels of education—elementary, junior high, senior high, post-secondary and to both in-school and out-of-school youth.

PROGRAMS FOR HANDICAPPED AND DISADVANTAGED PERSONS

Because of the evident impact that mandated use of funds for disadvantaged and handicapped persons has made in the Illinois program of vocational education, continued use of this procedure in subsequent vocational education legislation seems to be justified.

There is enough flexibility in the 1968 VEA and the USOE rules and regulations related to funds identified for disadvantaged and handicapped so that states should be able to initiate and implement needed programs. The Illinois policies for utilizing the Part B funds and the 102(b) funds take advantage of the flexibility in the Federal Act and provide for optimum utilization of these monies.

The Illinois State Plan has promoted integrating handicapped and disadvantaged persons into regular vocational programs, and has given financial support to the local school in providing special services necessary for these persons to achieve vocational goals. This method has instigated local school efforts to provide for individualized instruction and to utilize services of specialists in many supporting disciplines and from many different agencies.

Local school administrators in pursuit of ways and means to assist disadvantaged and handicapped persons to achieve vocationally have become acutely aware of a need for staff with special competencies. Many local school personnel involved in special education have attended vocational education workshops and enrolled in vocational teacher education courses in order to increase their competencies to better assist special education students achieve vocational goals. Vocational teachers and local vocational education administrators are finding ways of utilizing personnel from other educational disciplines in their local school and in outside agencies to assist in teaching and training handicapped and disadvantaged persons.

The State Board policies that have permitted the obligation of funds for special vocational education contracts with other State agencies have created another delivery system for preparing institutionalized persons to achieve vocationally.

The manner in which funds were identified for handicapped and disadvantaged persons in the 1968 VEA stimulated action in Illinois, action that probably would not have existed with the mandated funds for this target population.

Because of this new thrust in vocational education for the target population, new horizons were opened in a coordinated effort with the community, schools, state supported and private agencies who were responsible for this population. This coordinated effort made the local educational agency and state agencies look at the total individual rather than the narrow approach of satisfying one area of concern and forgetting the individual needs.

Many new approaches were implemented because this line of communication was opened. Examples of this are in the cooperative agreement of the local educational agency with the Department of Special Education, Division of Vocational and Technical Education and the Division of Vocational Rehabilitation. Eighty percent of the high schools in Illinois are now participating in this cooperative agreement to better serve the needs of the target population.

Another interagency arrangement with State institutional agencies has been pursued successfully for the target population not included under the LEA's responsibilities. Contractual arrangements have been approved with the Department of Corrections, Department of Children and Family Services, Department of Mental Health and Department of Personnel for new occupational programs which each agency could not start because of limited funds in their budget. This procedure has generated evaluation of all programs which are not significant to the new occupational opportunities available during the transition from institutional living to outside existence.

Monies generated from these amendments have been used by the LEA's to upgrade existing programs which have not met the needs of the target population. Many LEA's have hired additional staff, revised curricula, added a new approach to vocational counseling, reduced class size and implemented flexible scheduling to meet individual needs.

In the past two years, enrollments in vocational education have increased significantly in the LEA's and State institutions for the target population, which would not have taken place if designated funds were not made available. Many programs have been implemented in the pre-vocational areas for the ninth and tenth grade levels leading into occupational training programs. Many disadvantaged and handicapped dropped out or were pushed out of school previously before experiencing any occupational training. Now many are staying in school because they are able to realize success in occupational programs.

The following enrollment figures indicate this change:

		Fiscal year 1969	Fiscal year 1970	Fiscal year 1971
Disadvantaged	Secondary	14,450	67,098	94,897
	Post secondary	1,121	8,028	13,740
Handicapped	Secondary		4,023	10,437
	Post secondary		615	1,653
State agencies				560

The majority of Illinois monies for the target population has been expended in the new regular program funding basis, which has forced integration into the regular programs rather than development of new special programs for this group. Some special contracts have been funded to meet specific needs when the regular funding base would not warrant implementation of the program.

Some examples of these special contracts are in the area of finger spelling for adults, communication with the deaf, special programs for physical handicapped through university training, special curriculum development workshop, in-service training for supervisors of the disadvantaged, and several contracts with the state agencies mentioned above.

POST-SECONDARY OCCUPATIONAL PROGRAMS

Illinois' 37 public junior college districts, comprising 46 college campuses and the two public technical institutes, are making a significant contribution in their effort to provide one and two-year vocational and technical education programs. Presently, these institutions offer occupational education in 145 various areas of specialization. In these 145 specialized areas, cumulatively, the colleges offer a total of 821 programs.

The organization and implementation of post-secondary occupational oriented programs have been significantly accelerated by two significant legislative acts, (1) the Illinois Junior College Act of 1965 and (2) the Federal Vocational Education Amendments of 1968. The following data supports this rapid growth pattern:

	1966	1967	1968	1969	1970	1971
Number of programs	239	422	610	762	787	821
Number F.T.E. students enrolled	3,673	9,989	23,109	37,829	48,293	60,000
Percent of total credit hours generated by occupational courses	12.2	17.0	19.4	20.4	23.2	26.0

Projections for FY 1972 indicate an estimated 932 programs with a projected enrollment of 66,000 students.

METHOD OF INTRA-STATE DISTRIBUTION OF FUNDS

The following three pages describe the program, the funding formula, and the levels of support currently in use in Illinois.

APPROVABLE PROGRAMS, SERVICES, AND ACTIVITIES FOR USE OF VOC/TECH FUNDS

Program by Type		Level of Students	Basis for Reimbursement	Types of Services, Activities and/or Programs
APPROVED OCCUPATIONAL INFORMATION PROGRAM		Elementary Grades Typically K-8	Funded on number of students enrolled	Providing comprehensive, occupational information in a systematic, coordinated and sequential program.
APPROVED OCCUPATIONAL ORIENTATION PROGRAMS Preparing students for approved occupational training in five occupational areas: Ind. Orient. Applied Bio & Ag. Bus. Mkt., & Mgmt. Health Personal & Public Services		Typically 9th and 10th grade 14 and 15 years of age	Number of students enrolled on eleventh day of classes multiplied by carnegie units of credit assigned to class. Funded at a lower rate than occupational training programs.	Background orientation and preparation for approved occupational training programs, including the ancillary services necessary for a quality program.
APPROVED OCCUPATIONAL TRAINING PROGRAMS (Classroom, laboratory, and/or on-the-job experiences.)	Secondary	Typically 11th and 12th grade. 16, 17, 18 years of age and up.	Number of students enrolled on eleventh day of classes multiplied by carnegie units of of credit assigned to class. Funded at designated secondary rate.	Programs designed to train students for entry level employment and/or additional training which includes the ancillary services necessary for quality programs.
	Post-Secondary	Typically 13th and 14th grade. 18, 19, 20 years of age and up.	No. of students enrolled multipled by the credit hours. Enrollment taken at mid-semester or mid-quarter. Funded at the designated post-secondary rate.	Programs designed to train students for entry level employment or employment at the technical level, which includes ancillary services necessary for quality programs.
	Adult (courses which do not receive H.S. or college credit)	Typically those out of school who need training or retraining	No. of students enrolled multiplied by the contact hours. Enrollment taken at third meeting of class. Funded at the designated adult rate.	Training or retraining of persons for gainful employment who are out of school. Necessary ancillary services shall be provided.
APPROVED SPECIAL CONTRACTS		For whomever and wherever the need exists.	Enrollees of Program and costs involved. Funded at contracted amount.	Programs designed to fit the needs of individuals involved—research, development, exemplary, all specifically funded programs under the act, professional and curriculum development, and manpower development and training programs, and any other needed services, activities, and/or programs.

DISTRIBUTION TO SCHOOLS

(Based on the Following Excerpts From The State Plan Formula Applied as Applicable)

Basic Claim.—The basic claim will be computed by multiplying the number of student units of credit or contact hours as applicable for students enrolled in approved courses by the base amount set by the State Board.

Additional Factors.—Additional factors will be applied to the base as applicable.

Factor 1—Relative Ability To Pay.—Each local educational agency which offers an approved vocational-technical program qualifies for Factor 1 in relation to their relative wealth. Relative wealth will be determined in public schools by comparing assessed valuation (tax base) per pupil or full time equivalent (FTE) for junior college districts. A sliding scale from 0 to 100% of the base amount will be added to more nearly equalize educational opportunities and becomes the adjusted basic amount. (All districts qualify for the basic funds, but the least wealthy in any given category may qualify for double the basic reimbursement.)

Factor II—Provisions for Educating Disadvantaged Students.—If special provisions are made in the local district plan to provide vocational education for disadvantaged persons additional reimbursement may be claimed as follows: A sliding scale of 10% to 50% of the base amount figure may be added for the number of student units in which disadvantaged students are enrolled.

Factor III—Special Organizations.—Special organizations are defined as approved area vocational centers or cooperative joint agreements between school districts. A sliding scale from 10% to 50% of the base amount will be used to add additional funds as reimbursement for student units earned in programs which are designed to serve students from two or more school districts.

Factor IV—Initial Programs.—Initial programs are denied as programs offered for the first time in an educational institution. A sliding scale from 10% to 50% of the base amount may be added for the first year to such programs to encourage schools to expand their vocational offerings. These additional funds are provided to help defray the costs of implementing new programs.

Factor V—Manpower Priorities.—The manpower priorities factor may be added to the base amount when an educational institution offers programs for students which are designated by the State Board in cooperation with the Illinois State Employment Service as being priority areas of manpower shortage in which a low proportion of the training need is being met. Ten to fifty percent of the amount figure may be added if such programs are approved.

Factor VI—Programs for Handicapped.—An additional 10% to 50% of the basic amount may be added to the reimbursement claim if a school offers programs and services for handicapped persons. This amount will be computed on the number of student units earned by such persons.

Division of Vocational and Technical Education Funding Principles and Procedures

The State Plan for the administration of Vocational and Technical Education in Illinois outlines principles of funding approved programs in keeping with requirements of the 1968 Amendments to the Vocational Education Acts. These principles are outlined in brief summary from below:

FUNDING BY FORMULA

Basic Claim:

Elementary Program—$.50 per student enrolled per year in approved occupational information program.

Secondary Program—$50.00 per credit given in approved occupational training program up to $12.50 per credit given in approved occupational orientation and preparation program.

Post-Secondary Program—$7.50 per credit—semester hour—given in approved occupational training program.

Adult Program—$.25 per contact hour per student enrolled in approved occupational training program.

Additional Factors:

To the basic claim above shall be added the following factors for special priorities:

Factor 1—Relative Ability to Pay: Add from 0% to 100% of base, dependent upon relative wealth of local educational agency.

Factor 2—Educating Disadvantaged Students: Add 30% of base for those students classified as disadvantaged students.

Factor 3—Special Administrative Organization: Add 30% of base to those students enrolled through a cooperative joint agreement between two or more local educational agencies.

Factor 4—Initial Programs: An added percent of base for programs offered for the first time by a local agency. This factor was not funded in FY 1970.

Factor 5—Manpower Priorities Programs: Add 30% of base for those students enrolled in programs so designated as Manpower Priorities by the State Board. For FY 1971 the Health Occupations have been so designated by the Board.

Factor 6—Programs for the Handicapped: Add 40% of base for those students classified as Handicapped students.

Total funding by formula will be the sum of the funding factors and the basic claim.

FUNDING BY CONTRACT

Special programs, developmental programs, and ancillary programs may be funded according to terms of a contract between the Division of Vocational and Technical Education and the local educational agency.

CONTRIBUTION OF STATE ADVISORY COUNCIL

The Illinois Advisory Council on Vocational and Technical Education has been quite helpful in identifying areas of weakness and concern in the state program of vocational and technical education.

PROGRAM STRENGTHS, WEAKNESSES, AND CONCERNS

The following information was prepared in response to the specific questions posed for use in a recent Fact Finding Conference on Vocational Education relative to the current situations and conditions that exist in the program of vocational and technical education as operated under the provisions of the Vocational Education Amendments of 1968.

A. Program Strengths:

(*a*) Flexibility provided in the 1968 Amendments has made possible tremendous program expansion with dramatic increases in enrollments.

(*b*) Program emphasis serving the needs of all people has replaced the traditional narrow occupational orientation of the past.

(*c*) One-and-five year plan requirements have fostered meaningful long-range planning and accountability not present in education before.

(*d*) Emphasis and new program development under the Amendments have tended to generate a movement of equal status of vocational education with the total educational program.

B. Program Weaknesses:

(*a*) Failure of Federal funds to approach authorization levels has caused extreme hardship on State vocational education departments and local educational institutions. Operating on faith has put local districts in precarious financial conditions which eventually will result in program cutbacks and, at the same time, has reduced faith in State and Federal government.

(*b*) As may be the case in some States in addition to Illinois, because of some programs already extensively implemented in the States, certain line item appropriations to the States do not lend to prudent use of the funds available. The non-co-mingling aspect of the funds is detrimental. Inclusion of line item funds into Part B with percentage requirements would attain the intent of the legislation, at the same time providing more prudent use of the funds.

C. Areas of Concern:

(*a*) In concept, vocational education is designed to serve two groups: those in the labor market and those preparing to enter the labor market. The values inherent in adequate preparation for individual success regardless of the level of personal and professional attainment far out-shadow the potential for permanent success of a repair-oriented program. However, there is increasing evidence that repair-oriented programs are receiving more emphasis and financial support than the preparation program. These programs should be placed in proper perspective with their potential for results.

(*b*) Funds which are intended for preparation for the world of work while students are enrolled in the public educational system—elementary, secondary, and post-secondary—should be administered through H.E.W. and, at the federal, State, and local level, should be coordinated with the manpower needs of the State and Nation.

Funds which are intended for repair-oriented programs for those who have left the public educational system should be administered by the Department of Labor and coordinated with H.E.W. and the public educational system.

(*c*) If, in the future, funds that are currently appropriated as line items were appropriated as a portion of Part B funds, this would eliminate the problems that accompany some of these funds and at the same time would provide more flexibility for the States to accomplish the overall intent of the Federal legislation.

DIVISION OF VOCATIONAL AND TECHNICAL EDUCATION ENROLLMENTS—ACTUAL, ESTIMATED, AND PROJECTED, FISCAL YEAR 1965 THROUGH FISCAL YEAR 1972

	1965	1966	1967	1968	1969	1970	Estimate based on 1st semester 1971	Projected 1972
Elementary:								
Elementary occupational information						108,573	[2] 764,650	840,000
Percent [1]							600	10
Secondary vocational training	81,323	92,594	112,209	128,759	139,494	213,145	235,000	258,500
Percent [1]							10	10
Orientation and preparation						200,826	240,000	264,000
Percent [1]							20	10
Post-secondary	2,092	3,673	9,989	23,109	37,829	48,293	60,000	66,000
Percent [1]							25	10
Adult	57,695	[3] 47,817	47,519	[4] 41,147	39,895	49,218	52,500	55,000
Percent [1]							5	4
Special needs	8,332	9,308	10,979	12,723 [5] (4,748)	17,064 [6] (1,496)			
Disadvantaged						[7] (79,075)	(87,000)	(95,700)
Percent [1]							10	10
Handicapped						[8] (4,670)	(6,000)	(7,200)
Percent [1]							30	20
Consumer-homemaking						6,685	8,000	9,000
Percent [1]							15	12
Total enrolled	149,442	153,392	180,696	200,990	232,789	626,740	1,360,150	1,492,500

[1] Fiscal year 1971 and fiscal year 1972 percent of increase over previous year indicated.
[2] Chicago public schools program added in fiscal year 1971.
[3] Removed nonvocational courses from rolls.
[4] Moved many previously listed adult programs to postsecondary.
[5], [6], [7], and [8] Amount of total in parenthesis reported elsewhere.

Note. Revised Jan. 20, 1971.

INDIANA

State Director—H. Robert Hewlett

NEW LOOK IN VOCATIONAL EDUCATION

INTRODUCTION

We think that Indiana has a new look in vocational education—and this new look stems in a large measure from the 1968 amendments to the Vocational Education Act of 1963. I am sure that all of you who are familiar with the "old look" in vocational education will recognize the contrasts. The old look stressed narrow, segmented training programs which left out many people. The new look stresses the total development of the individual in preparation for a vocation. In creating the new look, we have made dynamic changes in seven major aspects of our program.

1. Development of new administrative procedures.
2. Development and growth of the concept of area schools to serve youth and adults.
3. Cooperative arrangements with other agencies.
4. Changes in methods of reimbursing local school districts for vocational training programs.
5. Enlarged programs for the disadvantaged and handicapped.
6. New efforts in research and exemplary programs.
7. Identification of unmet needs in the vocational education program.

Developments in each of these areas will be described in this booklet.

ADMINISTRATION

The staff operating the Division of Vocational Education is composed of 30 specialists in the various areas of education and program planning. This staff is one of the youngest in the nation. The average age is just under 35. Yet, each has had at least five years of classroom experience. Over 90 percent have their masters degree, and more than 20 percent have a specialist degree or its equivalent.

Policies of the Division are set by a State Board of Vocational and Technical Education assisted by a State Advisory Council. In addition, local community groups help formulate policy for local area schools.

The young staff of the Division has evolved a new philosophy of vocational education which they call the "new look." The new look stresses the concept of total, integrated education. Older views of vocational education stressed short-term, isolated bits of training. The new approach stresses complete education of the individual.

The staff uses a team approach in their work throughout the State. Specialists visit local sites as a team encouraging two-way communication about educational efforts. In years past, visits from the central office were sometimes viewed as supervisory inspections. Now the visiting teams are seen as offering a service to the local schools.

Functioning in this way, the Division has seen a rapid growth in programs and enrollments over the last six years. During the period between 1964 and 1970, student enrollment increased from about 72,000 to over 116,000, an increase of about 60 percent. During this period we constructed a number of new facilities, expanded programs, upgraded teachers, and extended our services to more areas of the state.

One of the major administrative accomplishments was a complete review and restructuring of the certification requirements for all types of vocational educators in Indiana. For many years the vocational teachers were considered a necessary evil in the educational community. However, with the Vocational Education Act of 1963 and the Amendments of 1968 a completely new view of the vocational teacher as a part of the total educational structure became possible. The new certification requirements for professional and non-professional teachers of vocational education in Indiana stress this view of the vocational teacher as a professional member of the total education team.

In addition, we have accomplished the following major administrative programs detailed elsewhere in this report: we have formulated a new State plan, instituted new policies of reimbursement, organized more efficient data processing systems, and established cooperative arrangements with other agencies.

Most importantly, we think that we have communicated to each youth of this State the message that there is a place for him right here in Indiana; that, with help, no one can tell just how far he might go.

THE AREA SCHOOLS CONCEPT

The Division of Vocational Education has taken leadership in the promotion of the "area schools" concept. The area vocational-technical center permits the student to spend part time at the vocational facility and the rest of the time at his home high school for regular academic subjects and extracurricular activities. In addition, the faculty can serve post secondary youth and adult populations in acquiring new skills required by business and industry.

A typical area school exhibits a partnership of school, community, State and Federal Government joining forces to establish a center for all age levels. The center serves students planning for immediate employment upon graduation, school dropouts, and adults preparing for employment with new job responsibilities. In addition, special programs are offered for the disadvantaged and handicapped. To meet the needs of these groups, programs are offered either as a part of high school, adult evening schools, special short courses, and related occupational or apprenticeship training.

The programs represent a wide variety of career objectives. They include occupations in agriculture, business, and industry. They also prepare people for health, distribution and marketing, and consumer-related occupations. All of the programs represent a cooperative arrangement among the Area Vocational-Technical Centers, local advisory groups, public schools, business, industry and public agencies of the community.

A plan for the complete implementation of a state-wide vocational education system was developed during 1969–70. The plan provides for 49 districts in the state. Twenty-three area vocational schools are now in operation, and 19 more are in the planning and development stages. The State and Federal funds which will become available will determine the rate of program development in the future.

COOPERATIVE ARRANGEMENTS WITH OTHER AGENCIES

Indiana is particularly proud of its cooperative programs between the Division of Vocational Education and other Federal and State programs. Vocational education is a major aspect of programs in rehabilitation, public welfare, and correctional institutions. Cooperative arrangements have been developed in each of these areas. The Vocational Education Division also cooperates with other agencies carrying out programs which receive substantial Federal funding.

Cooperative programs have also been developed for special education and guidance programs in the public schools, and in the State's institutional schools serving juvenile offenders, the deaf, and the blind. In addition, cooperative vocational programs have been established with service organiations such as the Future Farmers of America and other youth organizations interested in career development.

Cooperative arrangements now exist between the Division of Vocational Education and government funding programs serving a wide range of people. These include Titles I and III of the Elementary and Secondary School Act, Area Manpower Planning Systems, The Model Cities Program, and other programs related to the public welfare of the citizens of the State.

Several of these cooperative arrangements are the first of their kind and are being copied by other states. Cooperation with other agencies, however, needs further development. In particular, plans to develop the vocational interests and skills of youth in Indiana's correctional institutions must be given top priority. There are great concentrations of blacks, disadvantaged, and hard core unemployed in these institutions. Vocational and technical education can be a primary means of rehabilitating these young people.

CHANGES IN METHOD OF REIMBURSEMENT

One of the major administrative changes introduced in the State Plan is a new reimbursement procedure. Before the new procedure was introduced, each local school operating a vocational program received the same fixed percent of its total cost as a State reimbursement. This was true without regard to location or the quality of the program. Now we no longer reimburse all programs at the same level. Funds are distributed on the basis of the socioeconomic, manpower, and financial needs of the community. The quality of the program is also a major factor in determining the level of funding. The new reimbursement procedure helps distribute funds to the parts of the State with the greatest need and rewards the programs with the highest quality.

The criteria entering into the reimbursement procedure are set forth in detail in the State Plan. The major feature of this procedure is a numerical point system which is used to rate four aspects of the program:

1. The cost of the program and training activities.
2. The ability of the local school community to pay a part of the costs.
3. The extent to which the program reflects the vocational educational needs within the community.
4. The impact of the program on manpower utilization and job opportunities in the area.

Of course, other factors also enter into the formula.

The new reimbursement procedure is implemented with a computer system. For this computer system each program is described in terms of its objectives, groups served, size and nature of staff, duration of program, relevant characteristics of the community, and the surrounding job market. Major fiscal data are also part of the record.

The computer program calculates the estimated instructional cost for each program and generates index figures from other data. The total reimbursement is then determined by the computer in accordance with formulas specified in the State Plan. In addition, the program automatically generates summary statistics and other information required for State and Federal Reports. These include summaries of enrollments, dropouts, graduations, and cost and personnel reports.

We have reduced the number of forms required, eliminated hand calculations, and made it easy to articulate with other data systems. The system also makes possible cost comparisons and generates research data for program evaluation and planning.

This new reimbursement procedure has brought about a more effective distribution of State and Federal money. Individualizing reimbursement reflects our interest in building programs in soicoeconomically disadvantaged areas and in supporting programs which are effective in meeting local needs.

DISADVANTAGED AND HANDICAPPED

The Vocational Education Amendments of 1968 placed further emphasis on vocational education for the handicapped, socially disadvantaged, and hard core unemployed. In Indiana we have attempted to serve these groups by offering special programs designed for the individual needs of each participant. The total reimbursement for vocational education of the disadvantaged and handicapped increased by 240%. The number of the programs in the State increased and many more people were enrolled. Programs were developed in 59 of Indiana's 92 counties. Enrollment of handicapped and disadvantaged students jumped from 755 in 1969 to 1,921 in 1970.

Programs for the disadvantaged have been given substantially increased support from Federal funds (102–b) earmarked for use with the Model Cities programs. With these funds Indiana has established neighborhood center training facilities for school dropouts in Indianapolis, Gary, South Bend, Fort Wayne and East Chicago. The programs are generally built around non-traditional educational approaches. Instruction provides basic education, and communication and work-adjustment skills in addition to vocational training.

Among the socially disadvantaged are the children of migratory agriculture workers. Approximately 5,000 of these children come to Indiana during September and October each year, but only 500 typically enrolled in school. Last fall, however, almost 3,400 were in school. Because these children are from Spanish speaking families, their most pressing problem is language. Special teachers and Spanish speaking teacher aides were recruited and trained to work with these children. In addition to classroom instruction, the program provides breakfast, lunch, and medical and dental care.

The 1968 Amendments as implemented in the Vocational Act required that funds appropriated under section 102(b) of the act were to be allocated to areas of the State with high concentrations of youth unemployment or school dropouts. Title I eligibility was also used in determining the depressed areas of the State.

Using these procedures 56 counties are designated for special funding. Fifteen counties received over $100,000 each. Lake County which includes Gary and East Chicago received $527,668 and Marion County with its concentration of youth in the Indianapolis area received $737,914. Both of these counties are sites of special innovative programs designed for disadvantaged youth.

The Manpower Development Program provides vocational training for the hard core unemployed. Staff functions under the act are performed in the Division of Vocational Education. To June 30, 1970 almost 30,000 persons had been enrolled in Manpower Training Development programs, over two-thirds in institutional training and the rest on the job. Programs of class size were conducted in East Chicago, Evansville, Gary, Hammond, Indianapolis, Kokomo, Michigan City, Muncie, South Bend, and Vincennes.

It is my judgment that the Federal funds available in this program have had great impact in the State and in many areas of the State that had not previously been served.

RESEARCH AND INNOVATIVE PRACTICES

There were four major research and innovative projects in Indiana in vocational education: an exemplary skills center in Indianapolis, a new program to train respiratory therapy technicians, a broad effort to expand guidance services, and a state-wide study of the "image" of vocational education.

The exemplary program at the Indianapolis Skills Center began as a major service to dropouts and other disadvantaged youth. A student enters at any skill or achievement level and advances at his own pace. Instruction is offered in 17 skill areas including appliance repair, cooking, upholstery, cosmetology, and auto mechanics.

The Indianapolis Skills Center is one of the fastest growing and most successful of the innovative projects. By January 1971 enrollment was 373 active students, and 351 have completed a program. The program has been received with great enthusiasm by students, business, industry, and the community.

An experimental program to train respiratory therapy technicians was developed in the Lawrence Township schools with the Indiana University School of Medicine. This program is for high school seniors who have a good background in science. Students who complete this program will be eligible to receive certification as Certified Inhalation Technicians. The program was nominated for an outstanding activity award by the United States Office of Education.

Broad efforts in guidance have been instituted at selected schools supplying students to area vocational technical schools. This exploratory effort helps students start thinking about career selection at the junior high school level. Teachers of non-vocational subjects include job information and self study in their regular units. The objective is to create more awareness about vocations and training opportunities at an earlier age.

A research study concerning the public's knowledge and opinion about vocational education was carried out in five metropolitan areas. The study revealed widespread ignorance about the goals and nature of vocational education. As a result, one-minute film presentations about vocational education were made and are being shown on local television throughout the State. A followup study will assess the impact of the films on youth, heads of families, and workers at different occupational levels. The results will be used in planning information programs about vocational education opportunities.

In addition to these research efforts, four other projects are in progress: A survey of manpower needs in agriculture, the development of homemaker curriculum materials, the training of youth for hotel and motel service occupations, and the distribution of minigrants to assist teachers in investigating local problems.

A large scale curriculum development project is now in the planning stage. The purpose will be to create exemplary curricula for all areas of vocational education. This will be a five-year program and will probably require about $350,000 of funding.

Research Funds, reflecting our investment in the future, have grown from $18,000 to $435,000 in one year. This amount is still low when we consider that our projects are providing us with vital information on which our long range planning is based.

NEEDS OF VOCATIONAL EDUCATION

As I view vocational education in Indiana from the vantage point of the Division of Vocational Education, I see six major areas demanding study, planning, and development in the immediate future.

1. More State Funds

Our first and most pressing need is for more State funds. The Federal government and the local communities are making large contributions, but the total is not enough. While enrollments in vocational education have grown from 72,000 to 116,000 in the last five years, the State's per student contribution has declined substantially. The State of Indiana must again assume its full share in support of vocational education.

2. New Curricular Developments.

There must be a large-scale effort to develop new integrated curricula for vocational education with emphasis on clusters of skills and competencies common to broad occupational areas. Along with the new curricula there will be a need to develop exemplary instructional programs.

3. A Post Secondary Education System.

We urgently need an organized system for post secondary education in Indiana. The amount of State and Federal funds to support vocational programs for college-age youth in Indiana is far below the national average expended by other states.

4. Extended Guidance Programs.

We need an extension of job and occupational awareness and understanding. Enlarged guidance programs at all levels from middle school through adult can provide this awareness and understanding.

5. Vocational Education for the Disadvantaged.

Vocational education must be expanded in the "inner city" of our major metropolitan areas. These areas are crowded with disadvantaged people from a number of ethnic groups who urgently need education to become productive and realize their full potential.

6. Increased Research.

We need stepped up research in order to assess vocational needs and plan programs. Research is needed to help us learn how to motivate and teach more effectively. Research is needed to evaluate specific programs. Finally, research is needed to chart more accurately the future of vocational education in Indiana.

IOWA

State Director—William O. Schuermann

RESEARCH

The Iowa Research Coordinating Unit (RCU) was established June 1, 1965. As of July 15, 1969, the RCU had supported or committed Federal funds for a total of $273,322.22 through 72 projects. Research funds expended in Iowa since the passage of the 1968 amendments to the Vocational Act represented $62,651.00 and eleven (11) projects of the previous totals. These eleven (11) projects are listed on an attached sheet.

The research activities of the RCU were transferred to the Planning and Support Services Section when the Department of Public Instruction was restructured in December, 1969. In fiscal year 1970, no research funds were received in the State of Iowa and, consequently, no projects were funded.

Prior to July 1, 1968, twelve (12) of the fifteen (15) area schools had completed a manpower needs study for their respective area. Eleven (11) of these studies were funded through the RCU. After July, 1969, one area school study was financed by RCU funds. The one (1) remaining school used local funds in conducting their study. These projects indicated that a coordinated manpower need study for the entire state would be desirable. Plans are currently being made for funding a study of this type during the present fiscal year.

At the present time, $244,000.00 has been allocated to the State of Iowa for research purposes. A nine (9) member Research Advisory Committee has been established to review research proposals. The advisory committee has established priorities for research projects. Top priority has been given to a statewide manpower needs study. There are several other research proposals currently ready for review at this time. The following table presents the number of projects funded since the Vocational Education Amendments of 1968 by school and service area.

Institution	Service area	Number	Total
Iowa State University	Agriculture	2	8
	Home economics	5	
	Trade and industry	1	
University of Iowa	Health	1	1
University of Northern Iowa	Distributive education	1	1
Area schools	Manpower needs and enrollees	1	1
Total		11	11

Cooperative working relationships have been established and will be maintained with the institutions of higher learning and the area and local schools in Iowa. This relationship has also been estabilshed with state and federal agencies. Currently, participation in the Cooperative Area Manpower Planning System (CAMPS) is being maintained for statewide manpower planning. This allows for input of such findings as indicated by the area school manpower needs survey which were funded by federal research funds. Contributions to this committee also included information and statistics pertaining to public education. Membership in an interagency Manpower and Job Market Information Committee has been maintained.

The Iowa research activities included developing an information service by acquiring, abstracting, indexing, storing and disseminating research materials on vocational-technical education. In addition, a series of bibliographies have been developed. This information has been collected and developed in cooperation with the Educational Resources Information Center (ERIC) and the U.S. Office of Education. Copies of these same reports were also sent to the Center for Studies in Vocational and Technical Education, Madison, Wisconsin, as well as to other agencies and institutions on the mailing list maintained by the research unit. The bibliographic services available through ERIC were promoted. Reference was given to AIM, ARM, and RIE in response to individual requests for information.

VOCATIONAL RESEARCH IN IOWA

(July 1, 1968–June 30, 1969)

These proposals were partially funded under provisions of the Vocational Education Act of 1963, (Section 4(a), ancillary services).

Proposal number, initiator and address	Title	Grant funds
61—Wm. F. Berner, area II, North Iowa Area Community College, Mason City.	Occupational needs survey of employees with 4 or more employees within Cerro Gordo, Franklin, Hancock, Mitchell, Winnebago, and Worth Counties.	$1,850
62—Marjorie M. McKinley, Iowa State University of Science and Technology.	Factors associated with food service personnels' retention of job knowledge.	7,047
63—Marjorie M. McKinley, Iowa State University of science and technology.	Effects of a self-instructional program of training for food service personnel.	9,042
64—C. E. Bundy and Alan Kahler, Iowa State University of Science and Technology.	An experimental evaluation of the effectiveness of selected techniques and resources on instruction in vocational agriculture.	7,940
65—Alan Kahler and Thomas Hoerner, Iowa State University of Science and Technology.	An experimental evaluation of selected student-centered approaches to providing instruction in vocational agriculture.	7,841
66—Irene Beavers, Iowa State University of Science and Technology.	Identification of selected clusters of occupations requiring similar home economics competencies (extension of project 19, 29, and 54)	4,782
67—Virginia Thomas, Iowa State University of Science and Technology.	Pilot pattern for home management instruction in area vocational school curricula based on problems of young homemakers, employed fulltime in clerical and sales occupations (continuation of project 28 and 51).	5,196
68—Jim L. Drost, Iowa State University of Science and Technology.	Automotive mechanics curriculum for post secondary education in Iowa.	2,999
69—Irene Beavers, Iowa State University of Science and Technology.	Identification of selected clusters of occupations requiring similar home economics competencies (supplement to 19, 29 and 66)	4,914
70—Dale F. Petersen, University of Iowa	A followup of the graduates of health occupations education programs in Iowa which are partially supported by State and/or Federal vocational technical education funds.	6,420
71—Steven Glen Johnson, University of Northern Iowa.	A survey of classroom instruction in Iowa's high school DE programs to determine the needs for individual and group instructional materials and development of pilot instructional units and field testing.	4,620
Total		62,651

EXEMPLARY

A total of $256,064.00 was available during fiscal year 1971 for the funding of exemplary projects. These funds represented $117,479.00 carried forward from fiscal year 1970 and $138,585.00 allocated for Fiscal Year 1971. A priority of orientation to the world of work was established for the exemplary projects and their subsequent approvals. From the proposals received, four projects were selected for State Board approval. These projects are listed below:

No.	Title and institution	Funds	Budget for 1st year Federal grant	Funds local
E-1	Total career education, Monticello Community School	$30,678.60	$23,028.60	$7,650.00
E-2	Models for precareer education in Iowa, Iowa State University	139,190.00	58,591.00	80,699.00
E-3	IOWAscript, Des Moines Area Community College	72,563.00	56,187.00	16,376.00
E-4	Adaptation and implementation of a computerized vocational informational system (CVIS) in area 10 of Iowa—Joint county school system of Cedar, Johnson, Linn, and Washington Counties	94,600.00	58,860.00	36,000.00

MANPOWER NEEDS ASSESSMENT MODEL

The planning and evaluation of Career Education programs have been critically hampered by the lack of objective, supportive data on which to base decisions.

In order to partially bridge this information gap, the Iowa Career Education Division has developed a Manpower Needs Assessment Model, designed to accumulate the data needed for more realistic planning and more effective evaluation.

This Model features four major components, each containing statewide and area data:

1. Labor Demand Information (Job Opportunities)
2. Labor Supply Data (Available Applicants, Public and Private Training Output)
3. Students Interests (Occupational Preferences)
4. Follow-UP (Outcomes of Training Program Withdrawals and Completions)

Ideally, data from all four components should be collected annually to provide current, realistic information to develop an interface for objectively planning and evaluating Career Education programs.

Data collection techniques to be employed include:

1. Labor Demand Information: A statewide labor demand survey including a wide range of nonprofessional, less-than-baccalaureate degree occupations. Survey planning and coordination would be conducted from the state level, including developing an inventory of employers, designing the survey instrument, selecting occupations to be included, preparing mailing labels, and post-survey analysis and publication of results. Advisory assistance will be obtained from a steering committee composed of research-oriented individuals representing schools, universities, employers, unions, and appropriate state government agencies. Employer con-

tact and follow-up of nonrespondents will be accomplished by the area schools, for public relation purposes, and to attain a higher rate of response.

2. Labor Supply Data: Available applicant data will be extracted from the Iowa Employment Security Commission's *Annual Report on State and Area Occupational Requirements for Vocational Education;* public education training output from computerized enrollment figures; private commercial training output from the Private Schools Association; industry training data requested on the Labor Demand questionnaire.

3. Student Needs Survey: Survey universe will be established; a representative sample drawn; survey instrument developed or adapted; survey conducted by selected schools; and results analyzed and published.

4. Follow-Up Study: Now in operation, data collected as of October 15th for the prior school year. Indicates employment and/or educational status of Career Education program terminees and completers at both the secondary and post-secondary level.

Interfaces would then be developed to permit comparisons of data from all four components to assist in short- and long-range planning, and as one tool in evaluating program effectiveness.

DATA CONCERNING LOW-INCOME INDIVIDUALS

One of the most difficult problems confronting planners attempting to design programs, services and activities for the disadvantaged and handicapped has been the lack of "hard" data to identify and locate such individuals. Much statistical data has been developed, based primarily on projections from the 1960 Census. The Employment Security Commission in its *Annual Manpower Planning Report* provided statewide estimates of the "universe of need," i.e., the number of unemployed, underemployed and underutilized individuals in the state, with breakouts indicating the poor, near poor, and non-poor. However, such general information does not identify the "pockets of poverty" nor does it provide data for comparing different sections of the state in terms of the degree of need. Such identification is important in planning many of the special programs and developing reimbursement ratios according to the guidelines established by the 1968 Amendments.

Since data on the disadvantaged and handicapped and the incidence of poverty within the state are valuable to many state agencies, an interagency approach to the collection and utilization has been developed. Working within the framework of the State level Cooperative Area Manpower Planning System (CAMPS), an arrangement was made to obtain income information from the State Department of Revenue based on all 1969 state income tax returns filed in Iowa. This print-out series arranged by county and by school district, indicated the number of farm and nonfarm families filing state income tax returns. Further breakouts indicated the number of families by family size, and the range of adjusted gross incomes. Family size ranged from single persons to families with 10 or more members, while income levels ranged from $1,000 to $9,000 and over.

In order to develop indicators of the incidence of poverty statewide, by county, and by school district, the poverty level income scales provided by the Department of Labor were plotted against the State income tax data on income levels by family size. Data extrapolated from this mix were arranged to indicate the incidence of poverty in each county and each school district, identifying the *number* of low income residents, and the *percentage* of such residents to the total population. According to Department of Revenue sources, the tax data includes 95 per cent of the population.

The final information represents valuable base data for use in identifying and locating low income residents. Such data can be further enriched by information concerning school enrollments, recipients of free and reduced-price school lunches, students identified as possessing Special Needs, etc.

POSTSECONDARY EDUCATION

(Narrative Description of Iowa's Career Education Postsecondary Program Chart of Postsecondary Career Education Enrollments Fiscal Year 1968–Fiscal Year 1971)

Postsecondary career education efforts in Iowa are concentrated in the 15 merged area schools (11 area community colleges, 4 area vocational schools) created by the Iowa 61st General Assembly in 1965.

All of these schools offer vocational-technical courses in a wide variety of occupational areas. Specific career education programs provide initial preparation for employment and include study in full-time programs of from one quarter to two years in length. Related services offered include:

Community services structured to meet the needs of the merged area.

Adult education services, including supplementary training and upgrading, adult basic education, high school equivalency training, and specially designed remedial programs

Programs for handicapped and disadvantaged students, including such opportunities as assessment and orientation centers, sheltered workshops, and special courses.

Special training programs for instutionalized individuals at Iowa's corrective institutions.

Opportunities for the development of NEBIT (New and Expanding Business and Industry Training) programs to prepare individuals for new employment opportunities and to facilitate the expansion of existing industries and the attraction of new industries by assisting in the development of appropriately trained manpower.

CAREER EDUCATION AT THE POSTSECONDARY LEVEL, EXCLUDING MDTA PROGRAMS

Fiscal year	Full-time[1]	Part-time[2]	Total
OFFERINGS			
1967-68: Not recorded.			
1968-69: 253.			
1969-70: 286.			
1970-71: 285.			
ENROLLMENT			
1967-68	[3] 5,234	[4] 46,238	51,472
1968-69	[3] 6,662	[4] 43,176	49,938
1969-70	[3] 11,107	18,413	63,811
1970-71	[5] 7,456	[6] 21,970	29,426
INSTRUCTORS			
1967-68	317	26	
1968-69	539	83	
1969-70	663	78	
1970-71	691	(7)	

[1] Full-time is referred to as a preparatory program more than 12 weeksi n length.

[2] Part-time is referred to as a preparatory (short-term) program 12 weeks or less in length or a supplementary program.

[3] Actual enrollments for complete year July 1 through June 30.

[4] Enrollments were not recorded as secondary or postsecondary during this year.

[5] Actual enrollment at the end of the second week of the spring term. (Approximately 2d week in April.)

[6] Estimated enrollment for fiscal year 1971 (based on an actual enrollment of 8,919 through December 31, 1970, and an estimated enrollment of 13,051 from Jnauary 1, 1971, through June 30, 1971).

[7] Not available at this time.

DISADVANTAGED AND HANDICAPPED

(Narrative Description of Programs and Services for the Disadvantaged and Handicapped; Explanation of Special Activities Under Part F, Consumer and Homemaker Education)

Disadvantaged and handicapped youth and adults of Iowa were assisted through programs supported by Federal funds which provided:

identification of special needs people
diagnosis of specific needs
occupational interest exploration
evaluation of abilities and interests
remedial precareer instruction
work orientation and counseling
work experience
supportive services
assistance in job placement
liaison between special needs students and occupations instructors
in-service training of instructors
survey of agency and industrial resources
job development
entry-level occupational skills
student follow-up for job retention
coordination of efforts of agencies serving special needs people
assistance with personal and social adjustments and communications skills
correction of deficiencies for job entry
work-study experiences
independent learning centers with remedial instruction for upgrading of workers

Current work-study projects for the mentally retarded are serving 670 pupils. Needs are being met through sign language and interpreter services for those with hearing impairment; bench work for amputees; "big brother and big sister" exploration of the work world for ghetto children; job entry level skills for ADC mothers and for penitentiary inmates; and job experience and help with adjustment problems for narcotics users, juvenile delinquents and school drop outs.

An exploratory and innovative project has been designed as a preventative measure for potential dropouts to facilitate curriculum change to meet individual needs. In cooperation with the Governor's Youth Employment Commission, it provides related instruction and support services, assistance in job placement, and student follow-up.

Career oriented instruction is provided for persons who have advanced beyond special education classes but who cannot be accomodated in the usual cooperative work experience classes. Workers who have been laid off have been given diagnostic services and some skill instruction to regain employment.

The number of individuals being served by special needs projects in area and secondary schools more than doubled from 1970 to 1971.

	1969-70	1970-71
Disadvantaged	1,040	2,336
Handicapped	1,031	2,643

Many special needs pupils received occupational instruction in "regular" classes as well.

1969-70	Disadvantaged	Handicapped
Agriculture	1, 357	88
Distributive occupations	420	175
Health occupations	282	119
Home economics	337	91
Office occupations	406	220
Technical skills	62	69
Trades and industry	1, 577	1, 481
Total	4, 441	2, 243

In-service training was given to 289 teachers in 1970. There were 209 disadvantaged and 736 handicapped students in cooperative programs and 92 disadvantaged students in work-study experience in area schools in 1970.

CONSUMER AND HOMEMAKING EDUCATION

Consumer and homemaking education for adults with emphasis on consumer education expanded from classes in 22 communities in 1968 to 171 adult classes in areas of high unemployment in 1970.

In secondary schools in depressed areas 102 teachers included consumer education in their classes, encouraged greater consideration of social and cultural needs through identification of community needs and becoming involved in improving conditions for the aging, the ill, for children, and for individual family nutrition. Sioux City has a 3 year program for girls with special needs students within home economics classes.

The following agencies received cooperation from homemaking teachers and students:

Head Start: Classes in child development, parent's classes, menus, training of workers.

Upward Bound: Worked with the classes during summers.

Homemaker Health Aids: Served on committees for this group.

Meals on Wheels: Served on committees and gave publicity to this program.

Committee participation: Low rent housing, alcoholism, senior citizen.

Summer school classes for disadvantaged were held.

A state consultant worked with the vocational rehabilitation center for kitchen remodeling.

A special offering in summer school, Eating Patterns and Low-Cost Foods, including cultural factors influencing food costs was provided.

Student teachers participated in the Cooperative Urban Teacher Education program in Wichita, Kansas.

An Institute to prepare teachers for training of child care assistants was offered and was participated in by Iowans and out of state teachers.

Currently 321 vocational homemaking teachers are employed by 203 school districts to teach consumer and homemaking classes. Additional homemaking departments are being reviewed for vocational approval. The curriculum includes consumer education as an integral part, emphasizes nutrition and the economic aspects of food use and purchase, includes units contributing to the employability of the students and to the preparation of the student for the dual role of homemaker-wage earner. Nine schools are conducting wage earning classes in food service, child care, clothing services, tailoring, and home economics related occupations, with a current enrollment of 422.

One third of the Part F funds were used for the following programs.

1. A program was planned and implemented in cooperation with the Low Rent Housing Agency in Des Moines. In 6 months, one full time home economist has called on over 500 families for house inspection, offer of assistance, service in obtaining furniture, clothes, etc., identification of needs, nutrition advice and low cost food recipes, use of equipment, and published household hints and news for these families. People are now calling her for help.

2. Another program in Des Moines was implemented in cooperation with Model Cities in Des Moines. Two full time home economists and 4 para-professionals are working through the expanded use of school facilities in 4 schools. The para-professionals were hired through occupational upgrading and are given released time for college sheltered classes for further upgrading.

Working on a 1 to 1 basis they have averaged 200 house calls to 93 different families per month. They help with a breakfast program, teaching table manners and courtesy, repair the tears and sew on buttons, learn children's names and receive requests to call on the parents. Feedback indicates the people feel this is one group who really care and who follow through on promises of help.

3. In Sioux City, a coordinator and six teachers are conducting education classes at community centers with a current enrollment of 72 low income people. The cooperation of OEO was helpful for this program in providing meeting places and referrals.

4. Consumer education classes for low income people in Area XV have been started in Ottumwa and Oskaloosa. Classes are ready to begin in Sigourney, Centerville, and Albia. Enrollment is about 15 per class. The social welfare agencies and WIN program are cooperating in this program.

5. Plans have been made for a consumer education program for culturally deprived and low income people in the Waterloo area. It will be carried on by means of a mobile laboratory operating on a fixed schedule at the six major county social welfare offices, instructing both children and parents and conducting neighborhood classes. The instructor will also be available for consumer education talks to community organizations. Short courses and individualized instruction are planned for welfare recipients. The Department of Social Services, VISTA workers, OEO and Extension Service are cooperating in recruitment for and organization of this program.

METHODS OF REIMBURSEMENT TO SCHOOL DISTRICTS

Reimbursement procedures to local and area school districts were established in accordance with the criteria set forth in the 1968 Amendments to the 1963 Vocational Education Act. No basic changes have been made in the reimbursement procedures, although the process has been improved by the acquisition of more valid data, such as the 1970 census information.

However, the inadequacy of Federal funds in meeting identified needs has resulted in a continuing, substantial reduction in the *percentage* of reimbursement. At the secondary level, this reimburse rate has decreased from almost 50% in FY 1968, to slightly over 20% in FY 1970. Accordingly, the major burden of supporting career education efforts reverts back to the local districts.

CONTRIBUTIONS OF THE IOWA VOCATIONAL EDUCATIONAL ADVISORY COUNCIL

Members of the Iowa State Vocational Education Advisory Council are appointed by the Governor in accordance with the representation guidelines set forth in the 1968 Amendments to the 1963 Vocational Education Act.

The total membership is further broken down into the following standing committees: (1) Civic Responsibility; (2) Informational Services; (3) Evaluation and Recommendations, and (4) Manpower Needs and Training Effort.

Since the advisory council has been in existence only a comparatively short time; permanent policies, guidelines and procedures are still evolving. To date, two major contributions of this council are:

1. Its function as a sounding board, in reviewing and reacting to the annual revisions of the State Plan for Vocational Education, and other proposals to modify existing policies or operations.
2. The rather comprehensive annual evaluation of Iowa's total career education program. Usually the council contracts with an educational consulting firm for the investigative efforts, then follows with specific recommendations indicating needed corrective actions.

KANSAS

State Director—John E. Snyder

VOCATIONAL EDUCATION ACTIVITIES IN KANSAS, 1968–70

FOREWORD

This report briefly describes the changes and accomplishments in vocational education in Kansas since 1968. It has been compiled for use by the General Subcommittee on Education, Committee on Education and Labor of the U.S. House of Representatives in this Committee's hearings on revisions of the 1968 Amendments to the Vocational Education Act of 1963.

On February 1, 1971, Representative Roman C. Pucinski, Chairman of the General Subcommittee on Education, informed the Assistant Commissioner for Vocational Education in Kansas that he would be called as a witness at these hearings and requested detailed information on the administration of vocational education under the 1968 Amendments and especially the progress that had been made in research and in programs for the disadvantaged, the handicapped and the post-secondary students. In addition, information was requested on any administrative problems encountered and advice on proposed changes in the 1968 Amendments.

The information in this report is respectfully submitted in response to this request.

BACKGROUND INFORMATION

This section presents a brief overview of certain social and economic situations that prevail in Kansas and a description of the total educational structure within which vocational education must operate. A consideration of these items is important because they influence the philosophy and nature of the vocational education programs that evolved.

Distribution of the Population

The population of Kansas has grown slowly but steadily over the past decade. The rate of population growth over the past five years has been stable and about 7.5% per year. This is about half of the national average. The population in 1970 was approximately 2,250,000.

This population spread over a relatively large land area gives Kansas a comparatively low average population density. The Statistical Abstract for 1969 reports a state-wide average population density of 27.9 people per square mile. Approximately half of the counties report a population density of less than 10 persons per square mile.

There are three metropolitan centers that have populations in excess of 100,000. These are Kansas City, Kansas in Wyandotte County, Topeka in Shawnee County, and Wichita in Sedwick County. Wyandotte County has the highest population density with 1,225 persons per square mile. Other counties with high population density are Sedgwick with 355 persons per square mile, Shawnee with 308 persons per square mile and Johnson with 455 persons per square mile. Seventy-six percent of the communities in Kansas report populations of 10,000 persons or less.

Socio-Economic Trends

The social and economic structure of Kansas has changed substantially in the past twenty-five years. Historically agriculture, mining, transportation and aero-space were major industries in the economy. All of these have experienced severe cut backs in employment.

As a result of the decline in mining, the nine southeast counties of Kansas have been included in the Ozarks Regional Commission as depressed areas and two of these nine counties have been designated by the U.S. Department of Commerce as economically depressed areas of high unemployment. While the overall rate of employment in Kansas has remained comparatively low, the U.S. Department of Labor has designated Wichita and Kansas City, Kansas, as areas of concentrated unemployment.

Agriculture remains a major industry within the State but the trend is to larger farms operated by fewer people. During the decade of the sixties, the number of farms in Kansas declined from 110,000 to 88,000 while the average number of acres per farm increased from 456 to 568. These larger farm units require more capital investment and more technical know-how to operate. The importance of agriculture in Kansas is evident in that beef production is the largest industry in the State and meat processing ranks second.

The decline in farm population has reduced the employment opportunities and caused an out-migration of young people from the rural areas. These changes in the socio-economic pattern of the State have caused concern among State leaders and has led to increased efforts to attract new industry particularly to the rural areas and smaller communities. As a contribution to the effort, the State Board of Education in November of 1970 authorized the Division of Vocational Education to set aside 5% of the regular program monies for vocational education to be used for the training of workers in new and emerging industries in Kansas.

The Educational Structure in Kansas

Education at all levels requires a substantial portion of the State's financial resources. In 1970, the Governor's requested budget allocated 368 million dollars for this purpose. This represents 41.1% of the State's total anticipated expenditures for 1970.

The educational system in Kansas includes three State supported universities and three State colleges. There is one municipal university at Topeka and 17 church supported colleges and universities throughout the State. These denominational schools tend to be small liberal arts colleges with an average enrollment of approximately 1,000 students. The 24 State and private colleges and universities in Kansas enrolled approximately 70,000 students in 1969.

There are 19 public community colleges, one Federal, and five church supported junior colleges in Kansas. Fifteen of these offered one or more vocational programs in 1971. The total enrollment in these programs was 1,940 students. Five of these community colleges offer associate degree nursing programs.

There are 14 area vocational-technical schools that offer vocational education for both high school and post-secondary students. In 1970, these fourteen schools enrolled 8,774 high school students and 4,630 post-secondary students. Depending on the population of the attendance area, the number of programs offered in these schools varies from 11 to 38. The average number of programs is 17.

The Vocational Technical Institute, a division of the Kansas State College of Pittsburg, offers 10 programs in trade and industrial education, and the Kansas Technical Institute at Salina offers five high level engineering technology programs. Both of these institutions are for post-secondary students.

There are 311 unified school districts in Kansas. Of these, 188 offered 328 programs of vocational education for high school students in 1971. Agriculture and Home Economics predominates among these programs and reflects the rural nature of many of these high schools.

There has been substantial change in the education system of Kansas during the past ten years. During the first half of the decade, an extensive program of consolidation and unification was carried out to provide a sounder support base for the districts. This unification program reduced the number of districts from 1,848 to 311.

In 1969 a major revision of the State administrative agencies was implemented. Prior to this revision, vocational education was administered by a director working under an autonomous State Board for Vocational Education appointed by the Governor. This revised structure integrated vocational education with the rest of the educational system. Vocational education became a division of the State Department of Education administered by an Assistant Commissioner for Vocational Education.

VOCATIONAL EDUCATION IN KANSAS

This section presents a summary of the vocational education activities in Kansas that are reasonably permanent and can normally be expected to continue from year to year with some modifications.

Access to Vocational Education

The problem of providing equal access to vocational education for all students is always difficult in states that have a relatively small population spread over a relatively large land area. In Kansas, this problem is especially critical at the secondary level.

In spite of diligent efforts to unify local districts, the low population density in some parts of the state still requires many high schools with comparatively small enrollment. Data reported by the Kansas State Department of Education on enrollments in public high schools are shown in Table 1.

TABLE 1.—ENROLLMENT IN KANSAS HIGH SCHOOLS

Student enrollment	Number of schools
99 or less	99
100 to 199	113
200 to 299	57
300 to 499	53
500 to 799	25
800 to 999	7
1,000 to 1,999	23
2,000 or more	11

Source: "Selected School Statistics, January 1971," Kansas State Department of Education.

These data show that approximately one out of four public high schools in Kansas enrolls less than 100 students and approximately one out of two public high schools has less than 200 students. It is not economically feasible to provide much diversity of offerings through the traditional pattern of vocational education in schools of less than 200 students.

A partial answer has been the area vocational-technical school which can serve a combination of these small high schools, but many areas of the State are not yet included in a district of this type. A second approach has been the development of diversified or cooperative programs supervised by a local coordinator, but here again, the number of these programs at the present time, is not sufficient to meet the needs of all students. In 1971, 188 unified school districts offered one or more reimbursed vocational programs for secondary students.

Access to vocational education for post-secondary students is less complicated. There are 14 area vocational-technical schools and 15 junior colleges that offer vocational education for post-secondary students. In addition, post graduate students are served by a State supported two year technical institute and by special vocational programs in four of the State's six colleges and universities.

Secondary Enrollments in Vocational Education

Table 2 shows the enrollments in vocational education at the secondary level by fiscal years and service.

TABLE 2.—SECONDARY ENROLLMENTS IN VOCATIONAL EDUCATION BY SERVICE AND FISCAL YEARS

Service	Fiscal year 1968 enrollment	Fiscal year 1968 percent[1]	Fiscal year 1969 enrollment	Fiscal year 1969 percent	Fiscal year 1970 enrollment	Fiscal year 1970 percent
Agriculture	6,854	27.6	7,030	26.3	7,551	23.9
Distribution	1,499	6.0	2,041	7.6	1,499	4.8
Health	(27)	([2])	(33)		(47)	
Home economics	11,873	47.8	12,403	46.3	15,553	49.3
Office	1,790	7.2	2,218	8.3	2,917	9.2
Trade and industrial	2,820	11.4	3,069	11.5	4,045	12.8
Total	24,836	100.0	26,761	100.0	31,565	100.0

Source: State Department of Education Annual Reports to U.S. Office of Education.

[1] Percentage shown is the portion of total enrollment for the fiscal year in each service.
[2] Number of health occupations students in cooperative programs under trade and industrial.

These data show a steady growth in total numbers with some fluctuation among the various services from year to year. Agriculture and homemaking tend to dominate the secondary enrollments. This probably reflects the rural nature of the many small high schools. Enrollments in health programs are low because most health occupations are not well adapted to high school students. It is the policy of the Division of Vocational Education to use health funds primarily at the post-secondary and adult levels.

Using the FY 1968 total enrollment as a base, the percentage increase in secondary enrollments in FY 1969 and FY 1970 are:

Fiscal year	Total enrollment	Numerical increase	Percentage increase over fiscal year 1968
1968	24,836		
1969	26,761	1,925	7.7
1970	31,565	6,729	27.1

Post-Secondary Enrollments in Vocational Education

The post-secondary enrollments in vocational education for fiscal years 1968, 1969 and 1970 are shown in Table 3.

TABLE 3.—POSTSECONDARY ENROLLMENTS IN VOCATIONAL EDUCATION BY SERVICE AND FISCAL YEARS

	Fiscal year—					
Service	1968 enrollment	Percent [1]	1969 enrollment	Percent	1970 enrollment	Percent
Agriculture	95	3.1	104	2.6	416	7.9
Distribution	436	14.2	657	16.2	343	6.5
Health	352	11.5	555	13.7	485	9.3
Home economics	14	.5	3	.1	6	.1
Office	516	16.8	567	14.0	1,332	25.4
Trade and industrial	1,652	53.9	2,161	53.4	2,667	50.8
Totals	3,065	100.0	4,047	100.0	5,249	100.0

[1] Percentage shown is portion of the total enrollment for the fiscal year in each service.

Source: State department of education annual reports to U.S. Office of Education.

These show a substantial growth in post-secondary enrollment since 1968. From a numerical standpoint, trade and industrial occupations tend to dominate the post-secondary enrollments, but in percentage growth, agriculture enrollments increased more than 400% and enrollments in office occupations increased more than 250% during the three-year period:

Using the FY 1968 total enrollment as a base, the percentage growth in total enrollment of post-secondary students during FY 1969 and FY 1970 is:

Fiscal year	Total enrollment	Numerical increase	Percentage increase over fiscal year 1968
1968	3,065		
1969	4,047	982	32.0
1970	5,249	2,184	71.2

Adult Enrollments in Vocational Education

Trade and industrial education predominates the adult enrollments with more than half of the students. Office occupations showed the largest percentage increase over the three years with the FY 1970 enrollment approximately 176% of the enrollment for FY 1968.

The data for FY 1970 are not comparable with those for the other two fiscal years. In FY 1968 and FY 1969, the number of enrollments were reported while the data for FY 1970 are an unduplicated number of individuals in the classes. The fact that there was any increase at all in FY 1970 after this change in reporting procedures, suggests that there was considerable growth in enrollments for that year.

Adult education classes are more flexible than those at the secondary and post-secondary level. Typically, these classes are organized for a specific purpose and can be discontinued when this need has been met. For this reason, enrollments tend to increase or decrease on the basis of funds available. The adult enrollments in vocational education for fiscal years 1968 through 1970 are shown in Table 4.

TABLE 4.—ADULT ENROLLMENTS IN VOCATIONAL EDUCATION BY SERVICE AND FISCAL YEARS

Service	Fiscal year—					
	1968 enrollment	Percent[1]	1969 enrollment	Percent	1970 enrollment	Percent
Agriculture	1,521	5.2	1,310	3.3	1,031	2.6
Distribution	5,625	19.1	5,621	14.2	6,221	15.6
Health	747	2.5	589	1.5	291	0.7
Home economics	4,555	15.5	5,286	13.3	4,347	10.9
Office	2,016	6.9	2,786	7.0	5,572	13.9
Trade and industrial	14,953	50.8	24,038	60.7	22,490	56.3
Total	29,417	100.0	39,630	100.0	39,952	100.0

[1] Percentage shown in the portion of total enrollment for the fiscal year in each service.

[2] Unduplicated count of individuals enrolled.

Source: State department of education annual reports to U.S. Office of Education.

Enrollment of Selected Categories of Students

The 1968 Amendments to the Vocational Education Act of 1963 required that a certain percentage of the funds available be used to provide vocational education for selected categories of students. Of primary concern was the disadvantaged, the handicapped and minority groups. These are not distinct categories. There is much overlapping and the same student may legitimately be classified in two or more of these groups.

The State Plan for Vocational Education in Kansas defines disadvantaged persons as those who have academic or socio-economic disadvantages which prevent their success in a regular program without special help and encouragement. This includes persons whose need for such special help results from poverty, neglect, delinquency or cultural and linguistic isolation from the community at large. Examples of such persons are correctional institutions inmates, aged, migrant workers, drop-outs, juvenile delinquents and minority groups.

Handicapped persons are defined in the State Plan as those who have physical or mental deficiencies which prevents them from succeeding in a regular program without special education and related services. This includes such groups as the mentally retarded, the physically handicaped, the emotionally disturbed and those with special learning difficulties. State agencies such as the Division of Vocational Rehabilitation and the Special Education Section of the State Department of Education asist in identifying, testing and recruiting these persons into vocational education programs.

In general, the State has preferred to enroll disadvantaged and handicapped students in regular programs wherever possible. This is done with the firm conviction that it provides a better social and educational situation for the student. Further, the small number of disadvantaged and handicapped throughout most of the State almost requires that these students be served on an individual basis. Special classes are possible only in the larger metropolitan centers.

A preliminary survey by the Division of Vocational Education shows that approximately 20% of the students enrolled in regular vocational programs are disadvantaged or handicapped. As long as this policy meets the needs of the disadvantaged and handicapped students, funds reserved for these students will be used to defray the excess costs to the local districts and to provide the remedial and special instruction necessary for them to remain in these regular classes. If this policy fails to meet the needs of the disadvantaged and handicapped, special programs will be promoted and funded.

The identification, recruitment and reporting of students in these special categories is the responsibility of the local educational agencies subject to a random check by the appropriate State supervisor. State and local agencies concerned with the disadvantaged and handicapped are consulted and assist in the development of educational curricula specifically designed for the needs of these persons.

The enrollment of selected categories of students is shown in Table 5.

TABLE 5.—ENROLLMENT IN VOCATIONAL EDUCATION OF SELECTED CATEGORIES OF STUDENTS, FISCAL YEAR 1970

	Disadvantaged	Handicapped	Apprentices	Minority groups	Total enrollment [1]
Grades 7–12	4,508	2,353		2,202	31,565
Post secondary	607	317		403	5,249
Adult	3,481	854	1,248	1,651	39,952
Work study	[2] (124)	(31)		(59)	(155)
Cooperative	(384)	(122)		(89)	(1,578)
Total	8,596	3,524	1,248	4,256	76,766

[1] Total enrollment of all students in vocational education at this level or in this program.

[2] Numbers in parenthesis are students included in enrollments above and omitted from totals.

Note: Several exemplary and 2 remedial reading programs are funded but no enrollments are available at this time because programs are not fully implemented.

Source: State Department of Education annual report to U.S. Office of Education.

Vocational Education in Special Schools

Two special post secondary schools in Kansas offer vocational education programs not directly related to the activities of the State Division of Vocational Education. No vocational funds are allocated to these schools, but the staff will act as consultants upon request.

Recently the Bureau of Indian Affairs reorganized the famed Haskell Indian Institute at Lawrence, Kansas into the American Indian

Junior College. Vocational programs offered at this new junior college are:

- Air Conditioning/Refrigeration, 2 Programs.
- Auto Mechanics, 5 Programs.
- Baking, 1 Program.
- Carpentry, 1 Program.
- Cooking, 1 Program.
- Drafting, 2 Programs.
- Electricity, 1 Program.
- Electronics, 2 Programs.
- Machine Shop, 1 Program.
- Masonry, 2 Programs.
- Meat Cutting, 1 Program.
- Painting, 6 Programs.
- Welding, 1 Program.

These vocational programs are fully supported by the Bureau of Indian Affairs.

The Kansas Technical Institute at Salina, Kansas offers highlevel engineering technology programs for post graduate students. The Kansas Technical Institute enrolls 176 students in the following programs:

- Aeronautical Technology.
- Mechanical Technology.
- Civil Engineering Technology.
- Electric Technology.

This school is fully supported by the State of Kansas.

Vocational Education in Correctional Institutions

Regular vocational programs for inmates are offered in four state and one Federal correctional institution in Kansas. These regular programs are fully supported by the State or Federal governments and do not receive vocational education funds from the State Department of Education.

The staff of the Vocational Division assists these institutions through consultant services for planning curriculum and facilities and through assistance in the certification and training of teachers. These institutions and the number of programs offered are:

Institution and age level:	*Number of programs*
Girls' Industrial School, Beloit, Kans. (Juvenile)	2
Kansas State Industrial Deformatory, Hutchinson, Kans. (Juvenile)	20
Boys' Industrial School, Topeka, Kans. (Juvenile)	7
Kansas State Pentitentiary, Lansing, Kans. (Adult)	10
U.S. Disciplinary Barracks, Fort Leavenworth, Kans. (Adult)	26

In addition to these regular programs, the Manpower Development section of the Division of Vocational Education has been actively engaged since 1969, in the development of MDTA programs in correctional institutions. These programs are supported with MDTA funds available to the State.

Programs are in operation at the Kansas State Industrial Reformatory, Hutchinson, Kansas, The Kansas State Penitentiary, Lansing, Kansas and the Women's Annex of the Kansas State Penitentiary. At present, 392 persons are enrolled in these programs.

The programs at all three institutions include basic education, employability-work orientation and skill training in auto mechanic, machine operator, drafting, welding, general sales and general clerical.

Manpower Development Programs

Kansas offers vocational programs for both disadvantaged and unemployed adults under the Manpower Development and Training Act (MDTA) and the Work Incentive Program (WIN). These programs are coordinated by a supervisor and assistant supervisor in the Division of Vocational Education, State Department of Education.

Funding for these programs is 90% from Federal funds and 10% from State and local funds. In Kansas, these programs are a cooperative effort among the Division of Vocational Education, local or State schools and the appropriate agencies within the U. S. Department of Labor. Where military personnel is involved, the army is involved as a co-sponsor.

Manpower programs are designed specifically to meet the needs of disadvantaged, unemployed and welfare recipients. Typically, they are characterized by full time, intensive training over a relatively short period of time. When necessary they included basic education and counseling to raise the individual's level of employability.

There are two MDTA skill centers in Kansas. These are located in metropolitan centers at Kansas City, Kansas, and Wichita and are operated in conjunction with an area vocational-technical school. In 1970–1971, MDTA programs were offered in 11 different educational units. These included eight area vocational-technical schools, one junior college, one unified school district and one State university. In the same year, WIN programs were offered in five different area vocational-technical schools. Table 6 shows the number of programs and number of trainees by service.

TABLE 6.—NUMBER OF PROGRAMS AND TRAINEES IN VOCATIONAL EDUCATION PROGRAMS UNDER MANPOWER DEVELOPMENT, 1970–71

Service	MDTA		WIN	
	Number of programs	Number of trainees	Number of programs	Number of trainees
Agriculture	1	20		
Business occupations	6	270	5	180
Health occupations	4	238		
Home economics	1	44		
Trade and industrial	20	1,035	1	30
Total	32	1,607	6	210

Remedial Programs in Manpower Development

Many disadvantaged persons have difficulty in securing employment because they are handicapped educationally. Some lack the basic skills in reading and mathematics required to succeed in a vocational program. Others are limited in their employment opportunities because they have failed to complete high school.

Vocational education for these disadvantaged persons must some times include basic education at the elementary level, counseling on how to obtain a high school diploma through the GED test and orientation to employability. Programs of this type operated under MDTA and WIN during 1970–71 are shown in Table 7.

TABLE 7—ENROLLMENT IN REMEDIAL PROGRAMS UNDER MANPOWER DEVELOPMENT

Type of program	MDTA Number of programs	MDTA Number of trainees	WIN Number of programs	WIN Number of trainees
Integrated basic skills and vocational education	4	99		
Basic skills only	5	815	5	495
Orientation to work			2	185
Total	9	914	7	680

Operation Transition

One of the unusual programs under MDTA was "Operation Transition" for military personnel. This program is designed to upgrade the employability of military personnel during the last six months of service and thus provide a smoother transition from military to civilian life. It is entirely voluntary on the part of both the serviceman and the State and local educational agencies. If a serviceman elects to enroll in this program, he may receive counseling, testing, remedial education and job training tailored to his own particular situation.

"Operation Transition" was offered at two locations in Kansas. The Manhattan, Kansas, Area Vocational-Technical School which is adjacent to Fort Riley offered courses in four trade and Industrial areas and Automatic Data Processing. These courses were offered at Fort Riley and were administered by the Area Vocational-Technical School. There were 740 trainees involved.

A second "Operation Transition" was offered by the Leavenworth, Kansas Public School System for military personnel at Fort Leavenworth. In this program, trainees were fitted individually into the adult courses of the Leavenworth schools, and separate classes were not organized. Approximately 100 trainees were involved in these classes.

Instructional Staff

In FY 1970, there were 1,831 different individuals employed as vocational teachers in Kansas. Of this number, 807 were employed full-time and 1,024 were employed part-time. A breakdown by educational level is shown in Table 8.

TABLE 8.—FULL-TIME AND PART-TIME TEACHERS BY EDUCATIONAL LEVEL

Level	Full-time	Part-time
Secondary	509	164
Postsecondary	288	112
Adult	10	748

The distribution of teachers among the various services and types of assignment is shown in Table 9.

TABLE 9.—NUMBER OF VOCATIONAL TEACHERS BY SPECIALTY AND LEVELS, FISCAL YEAR 1970

	Secondary		Postsecondary		Adult	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Cooperative	7	1	4			
Disadvantaged	6	24	3	10	1	3
Handicapped	3	11	3			
Agriculture	155	11	16			67
Distribution	39		20		1	52
Health			78			14
Comprehensive homemaking	181	22				101
Vocational homemaking	4	18				11
Office	50		41			166
Technical	11	2	62	12		60
Trade and industry	53	122	61	95	8	287

Source: State Department of Education annual report to U.S. Office of Education, fiscal year 1970.

The data shown in Table 9 are the number of assignments and not the number of different individuals involved. These data are not comparable with those shown above because a full-time teacher may also be a part-time teacher.

Two State colleges and one State university cooperate with the Division of Vocational Education to provide both pre-service and in-service education for teachers. The Division of Vocational Education participates in the development and evaluation of these programs and assists with partial support from vocational education funds. The institutions and the services involved are:

Agriculture: Kansas State University, Manhattan, Kansas.

Business Occupations: Kansas State Teachers College, Emporia, Kansas.

Home Economics:

Kansas State University, Manhattan, Kansas.
Kansas State Teachers College, Emporia, Kansas.
Kansas State College, Pittsburg, Kansas.

Trade and Industrial Education: Kansas State College, Pittsburg, Kansas.

All of the occupational services except Health Occupations has a prescribed teacher training program, and the Supervisor of Health Occupations has expressed a desire to develop one in this area. Until recently, the number of teachers in health occupations was small and teacher training was achieved by assigning them to courses offered for the other services. The enrollment in pre-service and in-service teacher training by fiscal years is shown in Table 10.

TABLE 10.—STATUS OF TEACHER TRAINING BY FISCAL YEARS

	Number of enrollees		Number completing State plan requirements	
	Preservice	Inservice	Preservice	Inservice
Fiscal year:				
1968	600	437	(1)	(1)
1969	596	499	125	32
1970	715	504	177	95

[1] These data are available for fiscal year 1968.

Source: State Department of Education annual reports to U.S. Office of Education.

In 1968, Kansas State University established a Department of Adult and Occupational Education as part of its School of Education. This Department will offer a doctorate in vocational education and will be a valuable source of supervisory and administrative personnel.

In addition to the pre-service and in-service education for teacher certification, a continuing program of in-service training activities is provided by the colleges and university and by the staff of the Division of Vocational Education. Each service supports an annual workshop and usually a series of seminars and forums as a way to keep in-service teachers abreast of new developments in their fields.

State Administration of Vocational Education

An organization chart for the Division of Vocational Education in Kansas is shown in Figure 1. The Division of Vocational Education is one of five educational divisions within the State Department of Education. It is administered by an Assistant Commissioner for Vocational Education who reports directly to the Commissioner of Education and is coordinate with the assistant commissioners who are in charge of the other four divisions.

Within the Division of Vocational Education are five service sections. These sections and their functions are:

Planning and Development Services.—This section includes (1) research, (2) technical assistance, (3) certification of teachers and (4) development of the State plan.

This section at present, is not staffed due to insufficient funds and the functions of the Planning and Development section are distributed among other staff members. This handicaps the Division of Vocational Education in carrying out its responsibilities because only minimal effort can be devoted to these functions by staff personnel who already have full time assignments and because it results in a fragmented approach to the implementation of these responsibilities.

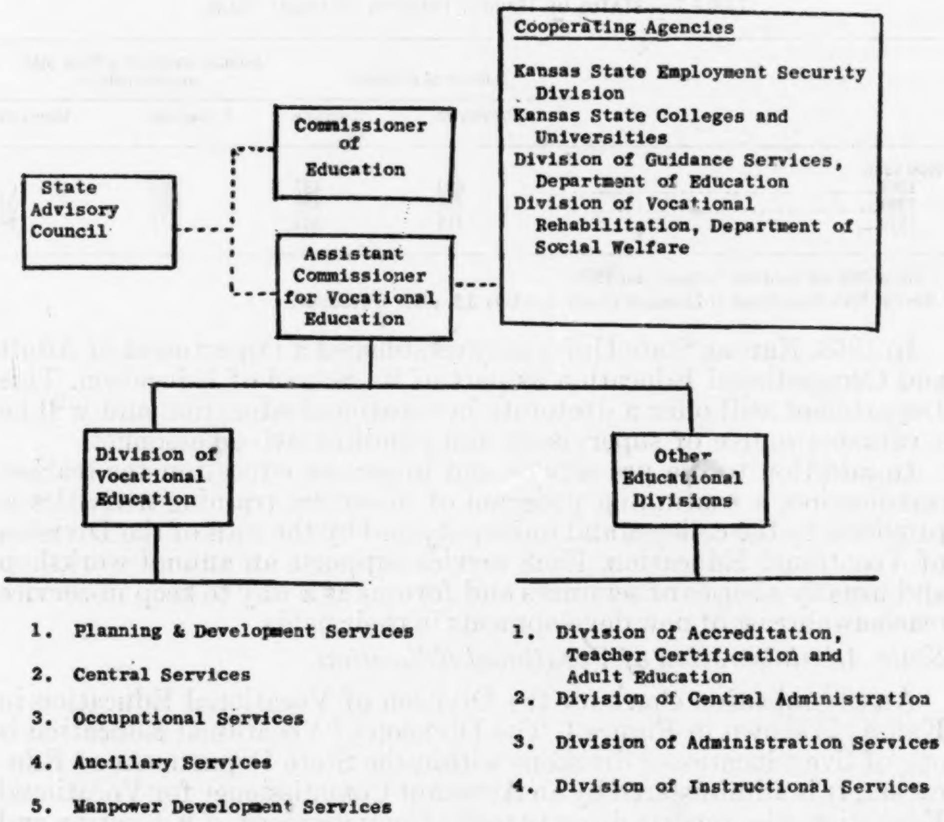

Cooperating Agencies
Kansas State Employment Security Division
Kansas State Colleges and Universities
Division of Guidance Services, Department of Education
Division of Vocational Rehabilitation, Department of Social Welfare
Commissioner of Education
State Advisory Council
Assistant Commissioner for Vocational Education
Division of Vocational Education
Other Educational Divisions
1. Planning & Development Services
2. Central Services
3. Occupational Services
4. Ancillary Services
5. Manpower Development Services
1. Division of Accreditation, Teacher Certification and Adult Education
2. Division of Central Administration
3. Division of Administration Services
4. Division of Instructional Services

FIGURE 1

ORGANIZATION OF THE DIVISION

OF VOCATIONAL EDUCATION

Central Services.—This section has responsibility for (1) fiscal management, (2) the development and maintenance of records and reports, and (3) personnel.

Services.—This section includes the supervisory staff in the five occupational areas of agriculture, business, consumer education and homemaking, health, and trades and industrial education.

Ancillary Services.—Included here is the State level supervision of (1) area vocational-technical schools, (2) work study programs, (3) vocational counseling and guidance, (4) exemplary programs and (5) special needs programs.

Manpower Development Services.—In this section are (1) Manpower Development and Training Act Programs, (2) Work Incentive Programs and (3) "Project Transition" Programs.

In addition to these sections within the Division of Vocational Education, the State Vocational Advisory Council functions as an autonomous agency under an executive director to study and evaluate vocational education throughout the State and to formulate recommendations to the Assistant Commissioner for Vocational Education and to the State Board of Education through the Commissioner.

Various State and Federal agencies cooperate with the Division of Vocational Education as advisors or as co-sponsors of special programs. Three colleges and universities cooperate in providing teacher training and in-service education programs. The Counseling and Guidance Section of the State Department of Education assists in the promotion of vocational guidance and in developing materials for use by vocational counselors. The Division of Vocational Rehabilitation cooperates to provide special assistance and programs for the handicapped.

The most serious problem in the administration of vocational education at the State level is the excessive work load carried by the Division of Vocational Education staff. During the 1966–67 school year, there were 20 professional and 14½ secretarial positions authorized. In 1970–71, there were 21 professional and 14 secreterial positions approved. There has been little increase in staff over the past five years although the work load has increased substantially.

Between FY 1968 and FY 1970, secondary enrollment increased 27.1% in vocational education; post-secondary enrollments increased 71.2% and adult enrollments increased approximately 36%. In addition, the requirements of the 1968 Amendments reserved special funds for certain categories of students. The identification of these students and the accounting procedures required for these special funds has greatly increased the work load of the staff members who process applications and compile reports from local districts.

Changes in Reimbursement Policies

Prior to 1970, reimbursement to local unified school districts was a flat amount for each full time teacher. Reimbursement to area vocational-technical schools was based on a flat percentage of the cost of operation. This method ignored the differences among schools such as the relative ability to pay and the types of students served.

In 1970, reimbursement policies were changed so that the amount of money received by each district was based on a formula. Five factors are involved in this formula. These factors are (1) manpower needs, (2) vocational education needs of students, (3) relative ability of the local school district to pay, (4) excess costs of the program and (5) other special considerations. These factors are weighted by the Division of Vocational Education to reflect their relative importance in the allocation of vocational education funds.

Figure 2 is a copy of the rating form used to determine the rank of programs in local districts and subsequently the amount of reimbursement for each program. It shows the items to be considered in rating each factor. The rating from one to five multiplied by the weight established by the Division of Vocational Education gives the number of points for each factor. At present, the weight of these factors are:

Manpower Needs: Weighted 7, maximum points is 35.

Vocational Education Needs of Students: Weighted 4, maximum points is 20.

Relative Ability to Pay: Weighted 3, Maximum points is 15.

Excess Costs: Weighted 2, Maximum points is 10.

Other Considerations: In addition, points over and above those obtained from the formula may be earned by local districts which qualify in the following:

	Points
Economically depressed area	5
High drop-out or youth unemployment area	5
Excellency in program evaluation	10

High Low

5 4 3 2 1

MANPOWER NEEDS AND JOB OPPORTUNITIES

Unemployment
Number of unfilled jobs in locality
Impact of program on local needs
Impact of program on State needs
Impact of program on regional needs
Impact on new and emerging job needs

VOCATIONAL EDUCATION NEEDS

Overall vocational education needs
Vocational needs of disadvantaged
Vocational education needs of handicapped
Post-secondary education needs
Impact of program on overall needs
Impact of program on needs of disadvantaged
Impact of program on needs of handicapped
Impact of program on post-secondary education needs

RELATIVE ABILITY TO PROVIDE RESOURCES

Taxable wealth per student
Available revenues per student
Location in economically depressed area
Location in areas of high unemployment
Percentage of vocational education levy set by the district

EXCESS COSTS

Excessive construction costs
Excessive wage costs
Excessive costs of equipment and supplies
Excessive maintenance costs
Excessive transportation costs
Other excessive costs (specify)

FIGURE 2

RATING FORM FOR VOCATIONAL EDUCATION PROGRAMS

The maximum number of points that can be earned by any program is 100. This includes a possible maximum of 80 from the formula and possible maximum of 20 from other considerations.

In computing reimbursement, each program within a specific classification is rated and the number of points earned is established. Next, the number of points earned by all programs within this classification is totaled. The reimbursement for a particular program is figured by dividing the number of points for the program by the total number of points for all programs in the same classification and multiplying this ratio by the amount of money available. For example, if the total number of points for a group of secondary programs is 8,000 and the amount of money available for reimbursement is $400,000, then a program with 85 points will receive:

$$85/8{,}000 \times \$400{,}000 = \$4{,}250$$

Programs of the area vocational-technical schools are evaluated in terms of these criteria but the Division of Vocational Education gives special consideration to these schools because of their limited financial resources. In addition to the reimbursement of programs, assistance is given to partially defray the cost of administration, counseling and other ancillary services. At present, reimbursement to area vocational-technical schools from State and Federal funds is approximately 45% of their operating costs. This figure varies from year to year depending on the amount of funds available.

Reimbursement for adult programs is set each year by the State Board of Education. It cannot exceed 50% of the hourly rate for instructors with a possible maximum of $5.00 per class hour.

Construction of Vocational Facilities

To the extent that funds are available, the State Division of Vocational Education has assisted local districts in the construction or alteration of vocational facilities. Kansas law prohibits the use of State funds for construction of local facilities. For this reason, construction funds available are approximately 50% Federal and 50% local monies. To date, all construction funds available have been used for area vocational technical schools.

Local districts submit an application for construction assistance and funds are allotted on a project basis after an evaluation of need. Construction projects which involve Federal funds must comply with Federal labor and equal opportunity standards and with Kansas law which requires competitive bidding on the construction of public buildings.

Table 11 summarizes the construction activities of the Division of Vocational Education for FY 1968 and FY 1969. No construction projects were funded in FY 1970 because of insufficient funds.

TABLE 11.—DETAILS OF CONSTRUCTION PROJECTS BY FISCAL YEARS

	Fiscal year	
	1968	1969
Construction of new schools	[1] 2	1
Noninstructional facilities [2]	[1] 3	[1] 7
Construction of new buildings at existing schools	[1] 2	[1] 2
Remodeling or alteration to existing buildings	[1] 3	[1] 15
Student capacity added	685	823
Classrooms added	67	24
Shops or laboratories added	31	23
Federal funds expended	$783,665	$195,250
Local funds expended	$889,737	$203,616

[1] Number of projects.

[2] Includes site development, land acquisition, administrative facilities, et cetera.

Source: State Department of Education annual reports to U.S. Office of Education.

Distribution of Vocational Education Funds

The estimated distribution of vocational education funds in Kansas in FY 1971 is shown in Table 12. These data are presented for purposes of illustration only. Obviously, the allocations for the different categories will increase or decrease from year to year as the needs for vocational education in Kansas change and the funds available from Federal, State and local sources vary.

TABLE 12.—ESTIMATED DISTRIBUTION OF FUNDS FOR STATE VOCATIONAL EDUCATION PROGRAMS IN KANSAS FISCAL YEAR 1971

	Total funds	Federal funds	State funds	Local funds
Type of program—Pt. B:				
Secondary	$6, 250, 000	$1, 254, 314	$765, 686	$4, 230, 000
Postsecondary	3, 200, 000	875, 000	655, 000	1, 670, 000
Adult	450, 000	155, 000	140, 000	155, 000
Disadvantaged [1]	1, 275, 000	564, 866	140, 000	570, 134
Handicapped [1]	840, 000	376, 576	50, 000	413, 424
Contracted instruction	(2)			
Guidance and counseling	185, 000	80, 000	45, 000	60, 000
Construction—Area vocational schools	(2)			
Ancillary services	1, 375, 000	460, 000	415, 000	50, 000
Administration and supervision	1, 010, 000	340, 000	335, 000	335, 000
Evaluation	10, 000	10, 000		
Teacher training	330, 000	85, 000	80, 000	165, 000
Research and demonstration projects	(2)			
Curriculum development	25, 000	25, 000		
Total	13, 575, 000	3, 765, 756	2, 210, 686	7, 598, 558
Sec. 102(b) State programs, disadvantaged	257, 378	233, 980	(2)	23, 398
Purpose:				
Pt. C, research	219, 258	209, 208	10, 050	(2)
Pt. D, exemplary programs	141. 221	131, 221	(2)	10, 000
Pt. E, residential (State)	(3)	(3)	(3)	(2)
Pt. F, consumer and homemaking education	1, 240, 000	248, 620	125, 700	865, 680
Pt. G, cooperative programs	365, 906	290, 906	(2)	75, 000
Pt. H, work-study programs	78, 888	63, 110	(2)	15, 778

[1] Amounts established for serving disadvantaged and handicapped students in special classes limited to disadvantaged or handicapped students only or, where possible, in regular programs of vocational education.

[2] None.

[3] Does not apply.

Source: "Part III, Kansas State plan, fiscal year 1971."

Activities of the State Advisory Council

The State Advisory Council for Vocational Education in Kansas was estabilshed in accordance with the requirements of the 1968 Amendments. The Council has 17 members appointed by the State Board of Education and is broadly representative of the State's leadership in labor, management, business, industry and education at all levels.

Although three positions were authorized for the staff of this Council, only two have been filled because of insufficient funds. The staff at present consists of an executive director and a secretary.

The 1968 Amendments charged the Council with the responsibility to "advise the State Board on the development of and policy matters arising in the administration of the State plan . . . including preparation of long range and annual program plans." The Council should also "evaluate vocational education programs, services and activities . . . and publish and distribute the results thereof," and "prepare and submit to the State Board through the Commissioner and to the National Council, an annual evaluation report . . . which evaluates the effectiveness of vocational education programs, services and activities . . . and recommends such changes in such programs, services and activities as may be warranted by the evaluation." The

State Advisory Council in Kansas has accepted these responsibilities and has worked diligently to fulfill them.

The First Annual Evaluation Report.—A major achievement of the State Advisory Council for Vocational Education was the completion of the *First Annual Evaluation Report.* In January, 1970, The Council employed Dr. Allen Lee of the Teaching Research Division of the Oregon System of Higher Education to conduct an evaluation of vocational education programs, services and activities in the State and to compile a report of this evaluation with recommendations for the improvement of vocational education in Kansas. The evaluation was completed on June 1, 1970 and the final evaluation report was submitted to the Advisory Council for approval in September of 1970. The results of the evaluation have been published and the distribution of the report is complete.

The study used a stratified sample of 100 out of the 583 vocational programs in the State. The schools to be studied were selected by lot within categories designed to obtain geographical distribution, variety in school size and equitable representation of the various types of vocation education programs.

Sixteen school districts were selected for the evaluation which involved two phases of activity in the district. These phases were:

1. *Self Analysis.*—The teachers and administrators were asked to respond to questions posed by an evaluation instrument.
2. *Community Reaction.*—The questions submitted to school personnel and their responses were submitted to a cross section of citizens in each community.

The information gathered in these two activities served as a major basis for the recommendations in the report. The deliberations of the community committees were chaired by staff members of the Kansas Department of Education and followed uniform, specified procedures.

In addition to the self analysis and the reactions of community committees, other sources of information used in the evaluation were:

1. Quantitative and statistical information obtained from various reports and State agencies.
2. Judgments of the contracting agency based on experience and observations.
3. Judgments of the Kansas State Advisory Council for Vocational Education based on experience and observation.

Seventeen strengths and 16 weaknesses in the vocational education programs of Kansas were identified. On the basis of this information, 22 recommendations for improvement were formulated and submitted to the State Board of Education.

Other Activities of the State Advisory Council.—The Advisory Council becomes involved in a variety of activities related to vocational education. The following are some examples of these activities.

During the past year, various groups concerned with vocational education have requested formal meetings with the Council, to present problems and to seek advice. Meetings have been held with representatives of the Kansas Engineering Society, the Junior College Advisory Council, and a review committee studying a proposed merger of the Kansas Technical Institute and the Salina Area Vocational-Technical School. The State Advisory Council for Guidance and the State Board of Nursing have requested meetings but no dates for these have been scheduled.

Because of concern that labor was inadequately represented on the State Advisory Council, a resolution was passed recommending that the State Board of Education appoint a representative from labor. The resolution was approved and the member appointed.

The State Advisory Council was active in promoting representation for vocational education on the Master Planning Commission for Education in Kansas and a member of the Council was appointed as a permanent member of the Commission. Other members of the Council served on advisory committees for exemplary programs and on a committee for the selection of nominees for the vocational education Leadership Development Program.

The Council gave consideration to the production of a film for television which would explain the function of vocational education and raise the image of vocational education throughout the State. After study, the project was not implemented because of insufficient funds. The Council did recommend to the State Board of Education that such a film should be produced and distributed to television stations as a public service type program.

Upon recommendation of the Council, the Executive Director and the Assistant Commissioner for Vocational Education requested the U.S. Office of Education to reconsider the requirements for approval of the State Plan. The Council felt that a yearly updating of the plan was reasonable but that extensive rewriting on a yearly basis could be eliminated.

The Council considered the need for accessible funds to conduct training programs for new and emerging industries in Kansas and supported a recommendation to the State Board of Education that a portion of Part B vocational funds be reserved for this purpose. This recommendation has been adopted by the State Board of Education.

SPECIAL PROJECTS IN VOCATIONAL EDUCATION

This section includes abstracts of major projects for specific purposes. This is not intended to be a complete and exhaustive list. Rather, it is intended to show the scope of activities in which the Division of Vocational Education has been involved. Small projects handled on a day to day basis have been omitted. Further, this list does not reflect the many staff hours devoted to the study and evaluation of projects which could not be approved for a variety of reasons.

The projects listed are in varying stages of completion. All have been evaluated, approved and funded. Some have been completed and others are still in the process of implementation.

Projects for the Disadvantaged

ACTIVITIES IN CHILD DAY CARE CENTERS IN MODEL CITIES

The Home Economics staff of the Division of Vocational Education cooperates with the Model Cities Program in Wichita, Kansas, to provide instruction for high school girls and adults in child care centers.

The child care centers are located in the Wichita North High School and the Wichita South High School. High school girls in Home Economics classes are given instruction in child care and opportunities for actual experience with the children in the day care centers. Adult classes for mothers of children in the child care centers are also available.

Other activities include:

1. One teacher who works with pregnant teen-agers to help them with child care and high school subjects.
2. The Homemaker Assistant Program provides instruction for adults in child care and opportunities to observe in the day care centers.
3. A twelve hour adult class of six sessions is available. Units offered in this class include (1) overview of pre-school curriculum, (2) art and materials, (3) music for fun, (4) story telling, (5) demonstration of the Child Development Resource Loan Center and (6) nutritious and delicious snacks and lunches.

CONSUMER EDUCATION IN HOMEMAKING FOR THE DISADVANTAGED

This is a project of the Wichita Area Vocational-Technical School and involves a mobile unit designed to serve persons in the low economic areas of Wichita. The unit is equipped to provide education in nutrition, food management, family planning, and skills in general homemaking. Child care and early education activities are emphasized.

Because this project involves bringing education to people under controlled laboratory conditions, a concomitant objective is to compare various approaches to education to determine which is most effective with these disadvantaged people.

It is expected that 200 students and adults will participate in this project.

DESIGNING COMMUNITY-WIDE OCCUPATIONAL OPPORTUNITIES FOR THE DISADVANTAGED AND HANDICAPPED

This project is an eight-week workshop for educators and community leaders from five selected communities.

The purpose of this project is to design and implement an action program to improve vocational education for the disadvantaged and handicapped students in the selected school attendance areas. Those participating in the workshop will be divided into teams consisting of one administrator, two vocational teachers, one communications skills teacher and one community worker. These teams will function as a unit throughout the workshop.

The program includes regular course work and visits to exemplary programs in other cities. Curriculum development for the disadvantaged and handicapped and evaluation procedures are an integral part of the workshop.

This workshop will be offered at Kansas State University, Manhattan, Kansas.

DEVELOPING CURRICULUM MATERIALS AND TEACHING AIDES FOR DISADVANTAGED AND HANDICAPPED STUDENTS IN VOCATIONAL AGRICULTURE

This project will develop teaching materials and teaching aides to help vocational agriculture teachers work more effectively with disadvantaged and handicapped students.

The project will also identify the resources available to these students from counselors and special education teachers.

A cluster of 20 lesson plans and an outline of services available to disadvantaged and handicapped students from counselors and special education teachers will be produced. When these materials are approved by the Division of Vocational Education, they will be reproduced and disseminated to all vocational agriculture teachers in Kansas.

This project will be done at Kansas State University, Manhattan, Kansas.

IN-SERVICE EDUCATION PROGRAM FOR VOCATIONAL TEACHERS OF YOUTH WITH SPECIAL NEEDS

This will be a two-week summer workshop for 80 teachers from agriculture, home economics, business, trade and industrial health education.

The purpose of this workshop will be to:

1. Orient the teacher to the culture of the disadvantaged.
2. Develop a better appreciation by the teacher of the variety of life among the disadvantaged.
3. Introduce theories and concepts of the psychology of learning that apply to the disadvantaged.
4. Broaden the teacher's understanding in curriculum development for the disadvantaged.

One half of the time will be spent in skill development in the instructor's area of work.

This workshop will be held at Kansas State University, Manhattan, Kansas.

IN-SERVICE TEACHER EDUCATION FOR MACHINE SHOP TEACHERS

This was a 40-hour workshop designed to provide industrial education teachers with the basic skills and related information necessary to help them work more effectively with disadvantaged students. It brought together experiences from a variety of sources and focused these experiences on the special needs of disadvantaged youth. Fifteen teachers participated in this workshop. The workshop was held at Pittsburg State College, Pittsburg, Kansas.

In addition to skills in the area of their specialty, the following units pertaining to disadvantaged young people were included:

Occupational Exploration for the Disadvantaged
Mentally Disadvantaged and Therapy
Socio-Economic Problems of the Disadvantaged
Physically Handicapped and their Therapy
Disadvantages of Minority Groups
Industrial Education for the Disadvantaged
Job Placement for the Disadvantaged

THE NEW TOWN PROJECT

New Town is a 100-unit housing project located within the Seaman Unified School District on the Northern edge of Topeka, Kansas. This housing project is sponsored by the Unity School of Christianity, Lee's Summit, Missouri. The Unity School created the New Town Communities, Inc., to serve as the mortgagor and to supervise the development and management of the project.

The purpose of the project was to provide safe, decent and sanitary housing for low income families. The project is unique in that half of the units are reserved for low income families eligible for rent supplements and half are available at regular market rates. This was a deliberate attempt to mix families of low income with those of moderate income. The units are one, two, three and four bedroom apartments. The residents are racially mixed and include persons with a wide range of ages, family circumstances, physical handicaps and educational achievement. The project was planned for a housing community rather than a housing project with considerable concern for the development of a desirable social environment as well as decent housing.

The Seaman area in which New Town is located is primarily a white, upper-middle and lower-middle income community with a large percentage of families who own their own homes. The area is partially within the City of Topeka and partially in the county.

Three separate organizations provided services to the New Town residents and to the Seaman community at large. These organizations were:

The Day Care Center
The Home Management Center
The New Town Community Center

The Day Care Center and the Home Management Center were sponsored by the Home Economics Section of the Division of Vocational Education and supported from vocational education funds. The New Town Community Center was owned by the Unity School of Christianity and programmed and staffed by the Topeka Recreation Commission. The actitivies of these centers were:

Day Care Center

Full day care for 20 children between the ages of three and six. To assist working mothers, this service was available from 7:30 a.m. to 5:30 p.m.

A half day class for 10 children of non-working mothers. This program consisted of pre-school experiences in science, art, stories, creative play, music and family play experiences. Both indoor and outdoor activities were provided.

Health services to children in the housing project and the Seaman community. Included here were the services of the Shawnee County Well Child Clinic and the Food Supplement Program.

Parent-teacher communications through home visits and conferences to help the parents understand their children better and to provide for their children's needs.

Vocational Training for jobs involving an understanding of preschool children and the skills required in a day care center.

The staff of the Day Care Center consisted of a credentialed home home economist who served as director with the assistance of paraprofessionals.

Home Management Center

Home visits were made to each home by paraprofessional members of the staff. The purpose of these visits was to explain the program and to provide assistance upon request.

A newspaper was published every two weeks to provide communication among residents and to provide an outlet for people to express themselves.

Informal coffee meetings were held once a week for the residents of the Seaman community. Topics of discussion were needed programs and child care.

A clothing bank provided used items for the home and the family at low cost. Volunteers from the community organized and distributed these items.

Classes and workshops were developed around specific needs upon demand. Among the classes offered for adults were Food Preparation, Clothing Construction, Child Care, Growth and Development, Home Finance, Interior Decorating for Homes, Personality, and First Aid. Classes in Family Life Education were offered for teen-agers.

A clearing house was maintained for vocational guidance and occupational placement. Referrals were made to other agencies when appropriate.

The staff of the Home Management Center consisted of one credentialed home economist assisted by paraprofessionals. The Home Management Center was sponsored jointly by the Division of Vocational Education and the Seaman Unified School District.

New Town Community Center

This was a recreational program sponsored jointly by the Unity School for Christianity and the Topeka Recreation Commission. Four types of programs were offered for grade school children, junior and senior high school age, family programs for all ages, and adults.

A wide range of consultant services was available. The Menninger Foundation provided a part time psyhciatric intern to assist families and children in the Day Care Center. Special education teachers were available through the Seaman Unified School District and the Division of Vocational Rehabilitation assisted handicapped persons with guidance and rehabilitation.

Community resources were widely used. The State Department of Education provided partial reimbursement for children's lunches in the Day Care Center, and the Office of Economic Opportunity provided salaries for eligible paraprofessional trainees. The Food Supplement Program of the Department of Health, the Well Child Clinic of the County Health Department and the Family Planning Clinic of North Topeka were all involved. In all, approximately 20 State and local agencies served in some capacity. In addition, many private citizens made donations to the programs.

As would be expected, the population of New Town varied as some residents left and new ones arrived. For this reason, any summary of characteristics is valid only for the date upon which it is compiled. As of January 13, 1971, the racial mixture of the residents in New Town was:

Race	Number of families	Percentage
American Indian	3	6
Caucasian	37	65
Negro	17	29
Mexican-American	0	0
Total	57	100

There were 162 children in New Town on this date ranging from infants to 18 years of age. There was an average of 2.8 children per family. Thirty-one of these families had only one parent in the home and 19 had both parents. Forty-seven of these families received rent supplements.

The New Town Project was considreed highly successful in terms of improved attitudes held by the residents.

Police reports in a sample month indicated that New Town rated substantially lower in 15 out of 19 arrest categories when compared with other housing projects of comparable population. This was especially significant in police calls attributable to problems of individual adjustment.

The achievement of economic independence was another index used to assess desirable attitudes. On March 1, 1969, there were 22 families in this project on welfare. On January 1, 1970, this number had dropped to ten. This is estimated to have saved the State and county approximately $33,600 in welfare costs. The drop was especially sharp among one parent homes where the number on welfare went from a high of 18 down to 7. This is directly attributable to the establishment of the Day Care Center which freed mothers with dependent children to seek employment.

Repairs to housing dropped 68% in a two month period after the paraprofessional staff was increased to provide an adequate coverage on home visits. The purpose of these visits was to create community cohesiveness and to advise residents on home care.

A follow-up study of children in kindergarten showed that almost twice as many children who had been enrolled in the Day Care Center program, were rated as socially adjusted as the children who came from the community at large.

These and other less objective criteria indicated that the work done in this project was very successful in dealing with a complex and complicated situation.

THE OZARKS PROJECT FOR SOUTHEAST KANSAS

The nine counties in Southeast Kansas are included in the redevelopment area of the Ozarks Regional Commission. This area is characterized by consistently high unemployment and low personal income. The project is a cooperative effort of the Ozarks Regional Commission and the Division of Vocational Education. It operates from the Coffeyville, Kansas Area Vocational-Technical School.

The program has three mobile laboratories that are equipped to teach electricity, electronics and welding. These mobile laboratories can be assigned anywhere in the nine-county area upon request. The program is supervised by a coordinator but usually, the instructors are from the local school and skilled in the particular speciality involved. These laboratories are used for both high school and adult students. Because of the problems of moving and power supply, these laboratories are assigned to a particular location for a minimum of six weeks.

STATE-WIDE DISSEMINATION OF INFORMATION ON PROGRAMS FOR THE DISADVANTAGED AND HANDICAPPED

The purpose of this project is to disseminate information about programs for the disadvantaged and handicapped, to administrators, counselors, vocational education teachers and special education teachers throughout the State.

The medium for disseminating this information is a series of three tele-lectures of two hours each. These are to be used in 15 centers that will serve approximately 300 different schools.

The lectures will cover funding procedures, exemplary programs, legal aspects and other facets of the vocational education acts relating to programs for the disadvantaged and handicapped. Consultants will be used for special programs. A concomitant objective of this project is the evaluation of the tele-lecture method as a means of disseminating this type of information.

This project will be done at Kansas State University, Manhattan, Kansas.

SUMMER VOCATIONAL PROGRAM IN AUTO MECHANICS FOR DISADVANTAGED YOUTH

This project will be done by the Central Kansas Area Vocational-Technical School at Newton, Kansas.

Twenty-five selected students, 15 to 17 years of age from disadvantaged homes will be enrolled in an eight-week vocational class for two hours per day. This class is designed specifically for disadvantaged students. The activities will include actual experiences in auto mechanic skills, general information on tools and safety, and the exploration of occupations in the automotive industry. Field trips and resource persons will be utilized as part of the class experiences.

TEACHER EDUCATION IN HEALTH OCCUPATIONS

This was a workshop for 20 disadvantaged students and 50 teachers from health occupations programs in Kansas. The group met from 8:30 a.m. to 8:30 p.m. for four and one-half days.

The purpose of this workshop was to help alleviate the high attrition rate among students and faculty in the health occupations programs. Approximately 20% of the students in practical nursing for example, are admitted under either MDTA or WIN sponsorship. The attrition rate is substantially higher among these students than among others. It was hoped that interaction between disadvantaged students and teachers in a group situation would promote better understanding of the problems and culture of the disadvantaged and improve the teacher's skills in working with these students. A consultant in nursing education was employed as a group leader.

The students selected for this workshop were enrolled in approved health occupations educational programs in Kansas. All of them were under either MDTA or WIN except for those selected from two-year associate nursing, dental hygienist and medical records technician programs.

THE TRADES PROGRAM

This is a program for students with special needs operated by the Lawrence, Kansas, Public Schools. It enrolls students with a broad spectrum of special needs and a corresponding variety of problems. At present, 71 of these students are enrolled.

This program combines instruction in basic general education and occupational education designed to make the student *employable*. Emphasis in this portion of the program is on individual skills, mathematics and reading. Assignments are flexible and students move through the program according to their own abilities.

Placement and follow-up is achieved through a cooperative diversified occupations program in which the students are placed in a work situation under the supervision of a local coordinator. The program is misnamed in that a wide variety of occupations other than trades are available to the student.

WORK-STUDY AND VOCATIONAL EXPLORATION FOR THE DISADVANTAGED

This program was operated by the Manhattan, Kansas, Area Vocational-Technical School. It provided an opportunity for 59 disadvantaged young people between the ages of 15 and 21 years of age, to explore various vocational fields. Fifty-two of the 59 completed the program.

Each student selected three areas of interest from the fields of electronics, electricity, printing, auto mechanics, power mechanics, drafting, office procedures, retailing and data processing. The student spent one week in each of the selected areas to assess his interest in the occupation. Classes were held at a maximum of eight students to provide individualized instruction.

During the afternoon, students worked in various public agencies. They were involved in actual work situations and were supervised by an on-the-job training supervisor. The coordinator visited the home of each student enrolled to build parent support for the program.

During the last week of the program, students were scheduled in small groups for "debriefing sessions." At these sessions, there was open discussion of such topics as employer-employee relations, coworker relations, employability training and a group discussion of how the summer's experience had helped the student. Information on how to complete job applications was provided.

Each student was rated by his on-the-job supervisor. Each student rated himself on the same rating form and compared his self-evaluation with that of the supervisor. Surprisingly, supervisors rated students higher than the students rated themselves.

Projects for the Handicapped

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR READING AND MATHEMATICS RELATED TO VOCATIONAL CLASS WORK

This project is sponsored by the Liberal, Kansas, Area Vocational-Technical School but will be performed by the Dorsett Company of Norman, Oklahoma, under a subcontract.

The purpose of the project is to develop a stated number of individualized learning programs in two areas of vocational education. Each program will have appropriate performance tests and evaluation materials. When completed, these programs will be available to other schools and states.

The subcontract for this project will require 10 programs in two areas of vocational education and 1,000 of the student-performance tests.

DEVELOPMENT OF VOCATIONAL EDUCATION AND SPECIAL SERVICES FOR THE HEARING IMPAIRED

This project is a planning grant to the Johnson County Community College. Three phases are planned for this project over a three-year period.

Phase I will identify needs, determine the feasibility of a local program designed to meet these needs and the development of a comprehensive plan for the total program.

Phase II will develop integrated pilot courses, special services, in-service education and field testing.

Phase III will implement the total program and initiate the transition from experimental to operational status.

At present, this project is in Phase I. The implementation of Phase II and Phase III will depend on the outcome of Phase I.

An advisory committee of regional educators, members of the hearing impaired community, hearing specialists and experts in rehabilitation was appointed and involved in all aspects of planning.

An objective of this program is to develop close working relations with State and local agencies concerned with the hearing impaired and to promote the in-service education of employers and potential employers to improve the attitudes of management toward these handicapped students.

A counseling and guidance program to fit the special needs of the hearing impaired will be develop through a cooperative psychological center. This center will provide social, clinical and vocational counseling for all hearing impaired persons throughout the community.

A LEARNING SKILLS CENTER FOR VOCATIONAL STUDENTS

This is a project of the Northwest Kansas Area Vocational-Technical School, Goodland, Kansas. It is designed to improve the reading and mathematics ability of the high school, post high school and adult students in the Area Vocational-Technical School. A survey of student characteristics in this school indicated that a substantial number of students in vocational classes were handicapped by a low proficiency in reading and mathematics and that remedial and corrective measures were necessary to permit these students to succeed in an occupation.

The identification of these handicapped students is achieved by an extensive evaluation program using standardized tests and a review of previously accumulated student records. The diagnosis of their problems is accomplished by a special education teacher and in some of the more complex cases, by professional and medical personnel.

The method of instruction is primarily by teaching machines designed specifically for remedial work in reading and mathematics. Students start at their own level and proceed at their own speed. Instruction is largely on an individual basis. The staff includes a special education teacher, a half-time vocational guidance counselor and two teacher aides. The stated goal of the program is to raise the reading skills of 75% of the students by at least two grade levels.

LEARNING SKILLS LABORATORY FOR VOCATIONAL STUDENTS

This skills laboratory is operated by the Liberal, Kansas Area Vocational-Technical School. The purpose of the laboratory is to upgrade the basic skills in reading and mathematics for educationally handicapped students. The administration and faculty of the Area School have identified approximately 30% of the students as being below normal ability in either reading or mathematics. This low level of achievement handicaps these students in acquiring the necessary skills for successful employment.

In the reading program, a special reading teacher is employed part time at the Area School to offer specialized instruction to high school and post high school students who are reading two or more years below their normal grade placement. A Vocational-Technical Reading Skills Training Laboratory manufactured by Psychotechnics, Inc., is available. Students are scheduled into the reading center for one hour per day, three days per week for thirty-six weeks.

In the mathematics program, a special teacher is employed part time at the Area School to upgrade the mathematics ability of high school and post high school students who are below normal in this area. The instruction covers addition, subtraction, division and multiplication of whole numbers, decimals and fractions. Students are scheduled into the mathematics program for one hour per day, two days per week for thirty-six weeks.

Evaluation of the student's progress is achieved by pre-enrollment and post-enrollment scores on a standardized test.

PLANNING VOCATIONAL EDUCATION FOR THE EMOTIONALLY DISTURBED IN AN INSTITUTIONAL SETTING

This is a planning project at the Topeka State Hospital, Topeka, Kansas. This is a large, State supported hospital for the emotionally disturbed. Within the hospital is the Capital City High School which is a cooperative school sponsored by the Topeka Public Schools, Topeka, Kansas, and the Topeka State Hospital. In 1970, the mean age of patients in this hospital was 29.2 years and 59% of the population was below 34 years of age.

The plan proposes a model that will integrate the resources of various State agencies concerned with the training and rehabilitation of disadvantaged young people. These agencies are the Division of Vocational Education and the Special Education Section of the Kansas State Department of Education, the Division of Vocational Rehabilitation, Department of Social Welfare and the Topeka State Hospital. The contributions of each agency will be defined within the limits of the agencies' potential and operating guidelines.

Because the students in this hospital are emotionally handicapped, a great deal of attention must be given to guidance and personality assessment. The student's ability to adjust to a work situation is an important criterion for enrollment in this program.

In this program, the student moves through five steps. These are:

Exploration and Evaluation.—A structural two- to four-week exploration period gives the student an opportunity to explore various occupations, and at the same time, gives the staff an opportunity to evaluate the student and assess his potential in a program of this type.

Course Sequences.—After completion of the first phase, students are scheduled into specific courses in vocational education. These courses include both class work and laboratory experiences.

Occupational Exploration.—This is an on-the-job training phase which is implemented as soon as the student has demonstrated his ability to adjust to the work situation and has achieved sufficient vocational and general education skills to make him employable. This is essentially a work-study situation under the supervision of the hospital.

Permanent Placement.—When the student has adjusted to the work situation and to the community, he is considered for placement in a permanent job.

Follow-up.—The vocational education staff of the Topeka State Hospital will conduct a follow-up of each student to determine his success on the job and to help resolve any problems that he may encounter.

A SPECIAL VOCATIONAL EDUCATION PROGRAM FOR THE HANDICAPPED

This is a planning project submitted by the Salina, Kansas, Area Vocational-Technical School.

This planning is preliminary to the implementation of a vocational program for the handicapped in the fall of 1971. The proposal includes the:

Employment of a project director
Evaluation of facilities and equipment
Identification of students to be served
Development of program objectives
Development of instructional methods
Staff requirements
Development of estimated costs

This is a cooperative project. Planning will be done in cooperation with the Division of Vocational Rehabilitation Center, the Special

Education Cooperative, the Self-Help Corporation of the Department of Social Welfare and the Salina Area Vocational-Technical School. Consultants will be utilized as needed.

VOCATIONAL EXPLORATION AND WORK STUDY TO DEVELOP POSITIVE WORK ATTITUDES FOR POTENTIAL DROP-OUTS

This is a joint proposal from four area vocational-technical schools at Manhattan, Liberal, Salina and Topeka, Kansas.

These will be 8-week summer programs. They are designed for 48 students from each area vocational-technical school. These students are all potential drop-outs, 15 to 17 years of age and come from families with a potential income of $3,500 per year or less.

The programs consist of a two hour per day session to explore four areas of vocational education through laboratory work, field trips and resource persons. The student will spend three hours a day in a work situation under the Work-Study Program. Students must work in a public agency and 80% of the student's wages will be paid from approved funds.

The purpose of these programs is to develop positive work attitudes. The work done in the work-study portion may not relate to the vocational class work. A local coordinator provides assistance for the students and their work supervisors.

Exemplary Programs

CAREER DEVELOPMENT ACTIVITIES—GRADES KINDERGARTEN THROUGH SIXTH

This is an exemplary program developed by the Liberal, Kansas, Public Schools. It is designed to develop occupational awareness on the part of elementary school children.

The objectives of this program are:

1. To create an awareness of the employment available in the Liberal area.
2. To develop an awareness of adults as working people.
3. To help children develop a realistic picture of themselves in relation to the world of work.
4. To establish the worth of all types and levels of employment and to develop an appreciation for the different kinds of work.
5. To appreciate the interdependency of various occupations.
6. To learn about new and unfamiliar occupations.
7. To be aware that occupations have changed and will continue to change.
8. To develop a vocabulary of work terms.
9. To utilize the techniques of simulation, gaming, role-playing, decision making, and dramatics in designing the learning experiences.

The project is designed to identify occupational information and to integrate this information into the curricula of art, reading, social studies, mathematics and science. Students interview adults in the community and resource persons are brought into the classroom. Field trips are utilized and students are urged to observe adults in work situations as they move about the community. Three levels of the project have been organized for K–3, 4–5, and 6th grades.

AN EXEMPLARY PROGRAM IN OCCUPATIONAL EDUCATION IN TYPICAL KANSAS RURAL, RURAL-URBAN AND URBAN SCHOOL SETTINGS

This is an exemplary program designed by the Kansas State Department of Education in cooperation with three selected school districts in Kansas.

The purpose of this project is to bridge the gap at the upper elementary and junior high school level, between the school instructional program and work. The instructional program in conjunction with the guidance department provides the latest educational and occupational information needed to assist the student to plan a realistic high school program.

This program is intended as a model to promote and evaluate pilot courses. If these pilot studies are successful, the program can be expanded to other schools in the State.

The stated objectives of this program are:

1. To provide occupational orientation for elementary and secondary school students.
2. To increase student awareness of occupations and careers and to provide the required skills and attitudes requisite to careers in such occupations.
3. To provide actual work experiences in a wide variety of occupational areas.
4. To provide specific skill training for students including those not previously enrolled in vocational programs and those students who may leave school before graduation.
5. To provide guidance and counseling for students to assist in career selection and job placement.
6. To develop curriculum options in vocational education for state-wide use.
7. To utilize community resources, including other agencies and industries, as well as school personnel to cooperatively develop occupational education in elementary and secondary schools.

The exemplary program for occupational education will be administered through the State Department of Education by a designated supervisor in the Division of Vocational Education. The State Advisory Committee for exemplary programs will consist of five members selected from the membership of the existing State Advisory Council for Vocational Education.

The local director of the program will be responsible for the coordination of the programs and for their supervision. Through a contractual arrangement, the functions of in-service teacher training; teacher workshops; evaluation procedures, curriculum direction and collection of information regarding useable results of the programs will be performed by Kansas State University.

The State director will be responsible for the State-wide dissemination of information, both in the form of written publications and of a workshop nature, concerning exemplary programs. The Advisory

Committee and Kansas State University will work together with the program director in the operation of the exemplary programs.

Each local exemplary program will have an advisory committee to assist the local program director develop an exemplary program to fit the needs of the community.

This proposal for an exemplary program in occupational education will be operated in three school settings representing rural, rural-urban and urban areas. Each center will carry out their program to meet the general objectives set forth in this proposal but in a manner adapted to the local school and community. The three settings selected for the programs are Clay Center, Lawrence and Kansas City, Kansas. Clay Center represents a school in a rural setting with an enrollment of 1,900 students in a town of less than 4,000 population; Lawrence represents the rural-urban setting with 7,000 students and a city of 31,000 population; and Wichita the urban setting with a school enrollment of 67,000 and a city population of 280,000.

The reasons for selecting schools within these three population ranges was to produce exemplary programs that could be duplicated in similar school systems in the State. Each of the three centers selected has made efforts to conduct a type of occupational program and each school is financially capable and philosophically oriented to carry out the program after the Federal support is withdrawn. Each school asked for assistance in an advisory capacity from the State Department to develop such a program.

The exemplary programs will have four phases. These are: (1) orientation, (2) exploration, (3) occupational experiences, and (4) placement and follow-up.

A Task Force will be organized in each exemplary program center to provide the nucleus for project activities. A program of in-service training will be developed through a contractual arrangement with Kansas State University for the orientation of teachers and guidance personnel of the Task Force. An intensive program of occupational orientation, job sampling and work exposure activities will be conducted in sequence throughout the levels of the schools. Occupational orientation for elementary students will be accomplished through the use of field trips, resource persons, and through a coordinated effort of the three programs. Extensive use of video tapes, film strips and films produced for this specific purpose will be used. Local advisory committees will be used to enlist community assistance. A resource center for career information will be established and equipped in the schools to serve the staff and the school population.

The occupational exploration phase of the program will be carried out at the upper elementary level and will consist of a work-study program for some students, the development of a "corporation" within the school, with the expansion and diversification of existing related programs, the use of mobile type units to provide "activity centers" for skill exposure for students in outlying schools, and the use of summer supervised work experience programs for students.

The occupational experiences will be provided by expanded uses of on-the-job experiences and cooperative work education programs. Opportunities for skill development will be afforded through specific vocational training programs in the high schools.

An intensive program in counseling and guidance will be developed throughout the program and special emphasis on in-service training for personnel on the task force.

The placement and follow-up phase will be done by the guidance and counseling departments in cooperation with local employment agencies and the local advisory council. The supervision of students in their transition from school to work will be a part of this phase of the project.

Research Projects

KANSAS VOCATIONAL INFORMATION FOR EDUCATION AND WORK

This project will provide vocational guidance information adapted to a specific locality, to elementary, secondary, and post-secondary students and their parents. A new system for the dissemination of occupational information known as Vocational Information for Education and Work will be used.

This system uses a deck of IBM cards so designed that four pages of microfilmed information can be mounted on each card. When the student selects a vocational area for exploration, he places the appropriate card in a reader and scans the four pages of information pertaining to the selected occupation. If the information is of interest to the student, a quick, full page print-out of any or all of the pages can be made. This print-out can be used by the student in consultation with his parents, counselors and teachers. It is not intended that this system will replace counselors. Experience has shown that it is an effective extension of their on-going guidance program.

The card system has many advantages over other types of media for the dissemination of occupational information. It can be easily updated and filed and can be key punched for sorting by occupational characteristics such as attitudes required, entry skills needed, licensing requirements and training opportunities. This key punching by variables greatly extends the flexibility of the system.

This microfilm card becomes a master card to be duplicated on a card Dupli-Printer. This provides card decks in quantity for distribution to schools. The final vehicle for presenting the information to the student is the Reader-Printer. This machine has a large screen upon which the information about a particular occupation can be projected.

This project will be implemented in four separate phases. The first phase will develop information specifically for the disadvantaged and handicapped student. Phase two will develop information for trade and industrial, technical and agricultural occupations and phase three will provide information on distributive, office, health and home economics occupations. The fourth phase will be devoted to evaluation and updating the information. Phase one is essentially completed at present.

A part of this project is an extensive series of workshops with local school personnel to explain and demonstrate the system. The acceptance of this system by counselors and teachers for use in their own schools will be an important factor in the success of the project.

MANPOWER PLANNING AND GUIDANCE STUDY

This study was done by Dr. Robert E. Scott, Kansas State College, Pittsburg, Kansas, under a grant from the Division of Vocational Education. The purpose of this study was to develop a system for determining vocational education needs based on manpower requirements in the State.

The study was divided into two separate parts. The first part was concerned with the projection and estimates of manpower needed in Kansas by 1975. Part two dealt with the total output of preparatory occupational education programs to meet the projected manpower needs. The basic method used in this study was the "In-put-out-put Technique" developed by the Pennsylania Department of Public Instruction. Sixty-four occupations selected from the Dictionary of Occupational Titles were used.

The base figures for employment used in Part I are the official 1960 census data published by the U. S. Department of Commerce. These data were adjusted for 1975 by a method presented in the U. S. Bureau of Labor Statistics publication entitled *Tomorrow's Manpower Needs.* This method was based on an occupational matrix which reflected changes through 1975, caused by influence of economic, technological and demographic developments on manpower needs. In essence, the data developed in Part I represented the level of employment expected in each of the selected occupations in 1975.

Annual demand was based on a straight line projection using the data developed in Part I. The difference between the 1960 census data and the projected employment for 1975 represented the employment growth. This growth was adjusted by an attrition rate computed for each of the 64 selected occupations. The adjusted growth minus the input from the occupational education programs was the net number of job openings to be filled.

In Part II, a wide range of institutions offering occupational training for first time entrants into skilled occupations in the labor market were identified and surveyed. The coverage of these institutions was extensive and included both public and private schools and State and Federal agencies concerned with manpower training.

A COMPUTERIZED STATE-WIDE FOLLOW-UP SYSTEM

The purpose of this project is to develop a State-wide, computerized follow-up system for vocational-technical graduates in Kansas. This system will use the information banks of the Kansas Income Tax Service and the U. S. Internal Revenue Service. A concomitant purpose is to test the feasibility of using a random sample of graduates as an alternate to the traditional "every pupil" survey. The project will be done by the Kansas State Teachers College, Emporia, Kansas.

The project is planned in three phases. The Developmental Phase will develop the system and devise tentative procedures. The Pilot Phase will test the usability of the system in selected school districts throughout the State. The selected schools will be asked to furnish specific information about students in the random sample. The evaluation of the system will be made by processing these data through the information banks of the appropriate tax services. The Dissemination Phase will orient and train vocational-technical personnel throughout the State, on the value and use of the computerized follow-up system. Training materials and information sheets will be developed and used in a series of training and orientation sessions.

A project committee is used to help plan and evaluate the project at all stages of its development.

Projects for Staff Development.

CAREER DEVELOPMENT WORKSHOP

This was a three and one-half day workshop developed by the Counseling and Guidance Section of the State Department of Education and funded by the Division of Vocational Education. The purpose of this workshop was to provide counselors throughout the State with the latest information on philosophy, practices and resources for career development.

The workshop was coordinated by Dr. E. G. Kennedy, Chairman of the Department of Psychology and Counselor Education, Kansas State College, Pittsburg, Kansas. Outstanding counselor educators were selected for consultants and resource persons. Approximately 65 counselors participated.

The workshop emphasized the State and local resources available to counselors and the topics for discussion reflect this emphasis. Areas of discussion were:

Career Counseling Today
Vocational and Technical Program Information for use in Counseling High School Youth
Organized Training Facilities Related Directly to Recent Federal Legislation
The Employment Service as a Resource for Career Counseling
Division of Vocational Rehabilitation as a Resource for Counselors
The Local Chamber of Commerce as a Resource for Counselors,
Counselor Attitudes and Career Counseling

LEADERSHIP DEVELOPMENT SEMINAR

This was a three-day seminar sponsored by the Division of Vocational Education, State Department of Education and held at the Ramada Inn, Manhattan, Kansas. The participants were the staff of the Division of Vocational Education, consultants from the U.S. Office of Education, selected local administrators and teachers and faculty members from the Kansas State University, Manhattan, Kansas.

The program consisted of presentations by local administrators and teachers as to how they perceived the role of the State supervisor followed by reaction panels of supervisors to assess how well they fitted this role. Another part of the program was exploration into ways that vocational education could serve the disadvantaged and handicapped and the role of the State Advisory Council.

LEADERSHIP DEVELOPMENT FOR VOCATIONAL EDUCATION PERSONNEL

This project will be carried out by the Division of Vocational Education in cooperation with Kansas State University, Manhattan, Kansas. It is supported by the U.S. Office of Education with a grant from the Education Professions Development Act appropriations.

The project proposes to study and design a State system of professional development and leadership for vocational education in Kansas. Specifically, some of the goals to be achieved are:

1. The establishment of priorities and a system for coordinating vocational-technical teacher education at the State level.
2. An evaluation of the organization and functions of the State staff.
3. An educational program to improve the local school administrator's understanding of his authority and responsibility in vocational education.
4. Recommendations and justification for a realigned administrative structure which will facilitate the establishment of new programs and improve the quality of administration for all vocational education in the State.
5. To study the services required for the Division of Vocational Education to adequately carry out its responsibilities and to identify areas of deficiency. Recommendations and justification will be developed for correcting these deficiencies. Possible areas of deficiency to be studied are (1) teacher education coordination, (2) program planning and development, (3) State plan review and policy decision making and (4) a capability for research.

The system will use seminars and workshops for both the State staff and local administrators of vocational education programs, to provide communication and involvement in the development and implementation of this State leadership system. These seminars may be developed by the State staff or through contracted services.

The staff of this project will consist of a part-time director working under contract with the Division of Vocational Education, and six doctoral candidates selected for internships from the doctoral program in adult and occupational education at Kansas State University. The doctoral candidates will serve on a rotating basis.

ADMINISTRATIVE PROBLEMS

This section presents a summary of administrative problems identified by the staff of the Division of Vocational Education and supplemented from the reports of the State Advisory Council. Not all of the problems are attributable to the 1968 Amendments. Some are State problems which must be solved at the State level. Regardless of the source, all of the problems have been included here to present a total appraisal of the administrative difficulties.

1. The major administrative problem of the Division of Vocational Education is the work load carried by the professional and secretarial staff. There has been essentially no increase in personnel in this Divi-

sion since 1968 while the enrollments and number of programs have increased substantially. Staff members are hard pressed to service the on-going programs and little time is available for planning and developing new activities.

In addition, the 1968 Amendments required specific procedures for selected categories of students and these procedures have increased the paper work required from staff members. This situation creates a sort of locked-in commitment to the existing programs; stifles the development of innovative ideas and reduces flexibility in the administrative process.

2. Corollary to the problem of insufficient staff is the reduced capability to adequately perform long-range planning and to gather, collate and disseminate needed information to both the staff of the Division and to local school personnel.

3. The timing of the Federal appropriations creates confusion in the planning of State and local agencies. For several years, the U.S. Office of Education has been unable to make firm commitments early enough for effective planning at the State level.

4. There is a critical need for planning, research and development services to provide basic data for decision making and to formulate recommendations for the solution of complex problems that require extensive study.

5. The regulations pertaining to the reimbursement of excess costs for disadvantaged and handicapped students are not clear and particularly so where these students are included in a regular vocational education program. Further guidelines and clarification is needed to permit State agencies and local districts to plan and implement services more effectively for these students.

RECOMMENDATIONS FOR CHANGES

1. It is recommended that when adequate, overall matching from State and local sources is maintained, the U. S. Office of Education be permitted to waive the 25% matching requirement for planning, research and development services and allow a State board of education to fully fund these services from Federal monies.

2. It is recommended that consideration be given to clarifying the regulations pertaining to the reimbursement of excess costs for disadvantaged and handicapped students particularly where these students are enrolled in regular vocational education programs and further, it is recommended that consideration be given to changes that would provide more flexibility in these regulations to facilitate administration at the State and local levels.

3. It is recommended that consideration be given to the transfer of institutional manpower programs to the jurisdiction of vocational education. The built-in relationship that inherently exists between the State administrative agency for vocational education and the institutions that offer occupational training will greatly facilitate the development and implementation of these programs.

KENTUCKY

State Director—Dr. Carl F. Lamar

STATEMENT OF DR. CARL L. LAMAR, ASSISTANT SUPERINTENDENT OF PUBLIC INSTRUCTION FOR VOCATIONAL EDUCATION IN KENTUCKY, STATE DEPARTMENT OF EDUCATION, FRANKFORT, KY.

Mr. Chairman and Members of the Education Subcommittee: I appreciate very much this opportunity to testify on the Vocational Education Amendments of 1968, and your invitation asking me to prepare a detailed statement on the progress made by Kentucky in developing and implementing Federally supported vocational education and manpower training programs during the "Decade of the Sixties," and to present any ideas that I might have for improving Federal laws relating to the administration of these programs.

In your invitation you suggested specific program areas that should be included in the statement. I have attempted to cover the entire expanse of our adult, vocational, and technical education programs and certain innovative ideas and projects that we have developed which are compatible with our beliefs about the appropriate place of vocational education in the broader concept of "career education."

I would be remiss in my statement if I failed to take this opportunity to pay tribute to the House Committee on Education and Labor, and especially, its Subcommittee on Education, for the tremendous dedication, dynamic leadership, and perserverance that has been exhibited during the "Decade of the Sixties" to promote the cause of education as a viable and essential force in preparing the people in this great country of ours for effective participation in the "world of work" and other life-serving activities. We are extremely fortunate to have such able and forward-looking chairmen as the Honorable Carl D. Perkins from the Seventh Congressional District in Kentucky and the Honorable Roman C. Pucinski from our neighboring State of Illinois. The other committee members have likewise distinguished themselves on behalf of educational progress. The people of this nation should be exceedingly grateful for your untiring efforts.

SOME CONCERN, CHALLENGES, AND SUGGESTIONS FOR CHANGE

An Awakening During the Sixties.—The "Decade of the Sixties" witnessed an awakening of the Conscience of America to the plight of the people in their struggle to find employment to support an adequate level of living. The deficiencies of the educational system in preparing the people for gainful employment and for a productive role in society became increasingly apparent. Significant developments in science and technology gradually altered the manpower requirements of the labor market. An explosion of knowledge and of the population compounded the situation. These changes raised critical issues, national in scope, and placed an increased strain on all forms of education.

Frustrations and dissatisfactions tended to evolve around problems of employment and related social issues. All areas of human endeavor was affected: human relations, concerns about the living environment, and the manpower requirements of the "world of work." Attention was drawn to such problems as unemployment, underemployment, technological displacement of workers, poverty, decay of cities, rural isolation, and discrimination in hiring practices. All of these problems concern education—especially vocational education. The experiences of the Sixties will serve to good advantage if they bring about the changes required to meet the growing demands and needs of the people in the Seventies.

It must be recognized that many approaches will be needed to deal with the evolving issues confronting the people; however, there can be no doubt that a broad based program of education and skill development must be the "key" to any long-range solution—both for the benefit of the individual and the welfare of society. It has become clearly evident that simply providing people with job skills is not enough. It must be the responsibility of education to help each individual find a meaningful role in society—one in which he can make a significant contribution and accept increasing responsibility for his own destiny and for those dependent upon him.

Significant Advances Recognized.—The Congress, State legislatures, the executive branches of government, and local organizations in many communities throughout the country are to be commended for their concern and positive action in the Sixties regarding the welfare of the people and the stability of the economy. The Report of the Panel of Consultants on Vocational Education to the Secretary of Health, Education, and Welfare, on November 27, 1962, was a milestone for education in this country. Its findings and recommendations were the bases for the development and passage of many Federal Acts pertaining to vocational education and manpower training. It stimulated legislative activity in other fields of education. This Report identified many crucial problems pertaining to the economy of this country and weaknesses in our educational system relating to these problems.

The many programs that have been developed in response to the recognized needs in these areas are commendable. However, the proliferation of programs administered by different agencies of the Federal government but directed as much the same clientele at the local level within the different states has created unnecessary duplication of effort, inefficient allocation of resources, and, in many instances, inadequate utilization of existing resources. The time has come for serious consideration to be given to the consolidation and coordination of all vocational and manpower training programs into one comprehensive program based on a clearly defined "National Manpower Development Policy." This comprehensive program should be developed as an integral part of a clearly defined "Career Education" curriculum that extends from the very beginning of early childhood education to the end of the productive life of adults. (See Figure No. 1.)

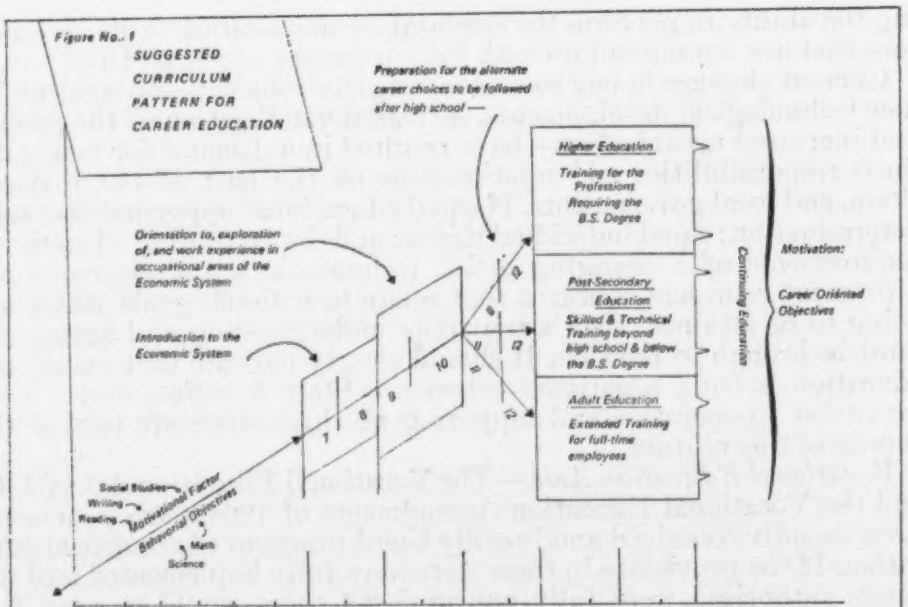


Figure No. 1
SUGGESTED CURRICULUM PATTERN FOR CAREER EDUCATION

Preparation for the alternate career choices to be followed after high school —
Higher Education
Training for the Professions Requiring the B.S. Degree
Post-Secondary Education
Skilled & Technical Training beyond high school & below the B.S. Degree
Adult Education
Extended Training for full-time employees
Continuing Education
Motivation:
Career Oriented Objectives
Orientation to, exploration of, and work experience in occupational areas of the Economic System
Introduction to the Economic System
7
8
9
10
11
12
Social Studies
Writing
Reading
Motivational Factor
Behavioral Objectives
Math
Science
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
etc.
Early Childhood
Practical Arts & Pre-Vocational Education
Vocational Education

Challenges for Education.—It is clearly evident that the impact of technological developments on the economy has changed the educational requirements of the labor market at a more rapid rate than the educational system has been able to comprehend them and adjust its curriculums so as to assure their relevance to the needs of the people and to the manpower requirements of the labor market.

There is no doubt that technological developments and increased automation are remaking the social and economic systems of this country. The impact of these changes is profound for education. It is imperative that the public school systems of this country respond in a positive way during the "Decade of the Seventies" to the new and changing demands being made upon them. They must be prepared to adapt continuously to these new demands if they can expect to receive adequate public support to stay in business.

Increased attention must be given to the individual needs of all the people in the labor force and those preparing to enter it. Special individualized attention needs to be given to the academic, socioeconomic disadvantaged, the physical and mental handicapped, the returning military veterans, the technologically displaced workers who are underutilized, minority and ethnic groups, school dropouts, and the slow learners—as well as the normal and gifted learners.

All educable and trainable individuals in our society should be led to believe that all publicly acceptable employment is honorable and that people best suited for semiskilled and service jobs are to be regarded as responsible citizens doing essential work same as those in higher levels of employment. They should be able to receive an education that is commensurate with their aspirations and aptitudes.

The public school system should be charged with the responsibility to help the disadvantaged, the handicapped, and low-ability students, along with those who are more fortunate, get adequately prepared for a productive role in the labor market and a useful role in society.

We should be able to develop a system of public education in this country that makes it impossible for the people to reach maturity lacking the ability to perform the essential communication skills and hold jobs that are commensurate with their interests, needs, and abilities.

Current changes in our socioeconomic environment—brought on by new technological developments, increased mobilization of the people, and increased urbanization—have resulted in a demand for newly defined responsibilities and relationships on the part of the Federal, State, and local governments. If equal educational opportunities; self-determination; equal individual rights; and the expanding educational requirements of a changing social, technological, and economic environment represent concerns that relate to national goals which are going to be attained, then a tripartite understanding and agreement must be brough to fruition. It should clearly indicate that vocational education is truly a national *concern*, a State *function*, and a local *operation*. Cooperation and support at all three levels are vital to the success of this venture.

Vocational Education Acts.—The Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 make provisions for a soundly conceived and broadly based program of vocational education. If the provisions in these Acts were fully implemented and the funds authorized were fully appropriated there would be very few changes or additions needed for the development of a sound program of vocational education in this country. It needs to be recognized that this is primarily a developmental program. Hopefully, it can be strengthened so as to minimize and possibly eliminate the dropouts and others unprepared for appropriate employment in the labor force at the termination of their formal educational experience. To a limited extent, provisions are made for serving the people who need remedial education.

The Manpower Development and Training Act, Appalachian Redevelopment Act, Economic Development Act, Adult Education Act, and the Elementary and Secondary Education Act have been exceedingly beneficial in meeting definite remedial needs caused by deficiencies in our public edudcation system and drastic changes in our economy. These Acts have some deficiencies that need to be corrected. Yet, they have been addressed to serious remedial educational problems that must not be minimized so long as they persist. In the consolidation of Federal vocational education and manpower training programs into a more comprehensive and coordinated program, the remedial needs must be satisfied if a sound program is to be developed.

VOCATIONAL EDUCATION IN KENTUCKY

The programs of adult, vocational, and technical education, and manpower training in Kentucky are the direct result of Federal legislation that authorized these programs and provided direction and financial support for their development and continuation. It is doubtful that we would now have the broad mandate to provide vocational education and manpower training—"so that persons of all ages in all communities of the State . . . will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful (or useful) employment, and which is suited to their needs, interest, and ability to benefit from such training"—had it not been for the national concern expressed by the Congress and the President of the United States in Federal vocational legislation. The action at the Federal level has truly

been a strong motivation to the State of Kentucky and to local educational agencies throughout the State. This is exemplified by the fact that State and local financial support of vocational education is now about $5 for every $1 of Federal support. (See Figures 2 and 3.)

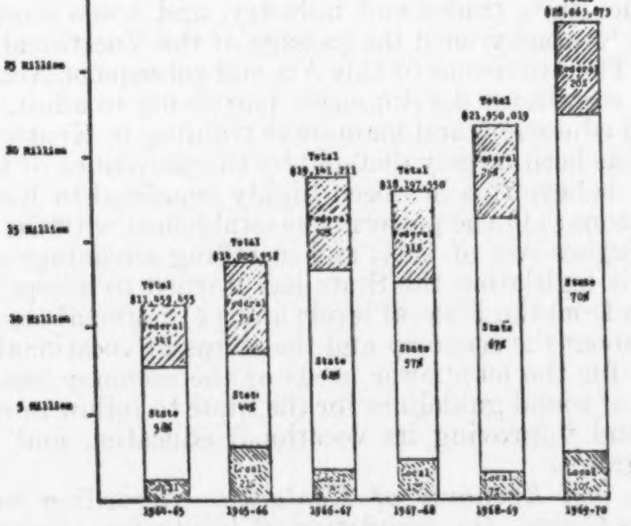


Figure No. 2

Sources for Kentucky Vocational Education Funding, 1964-65 through 1969-70

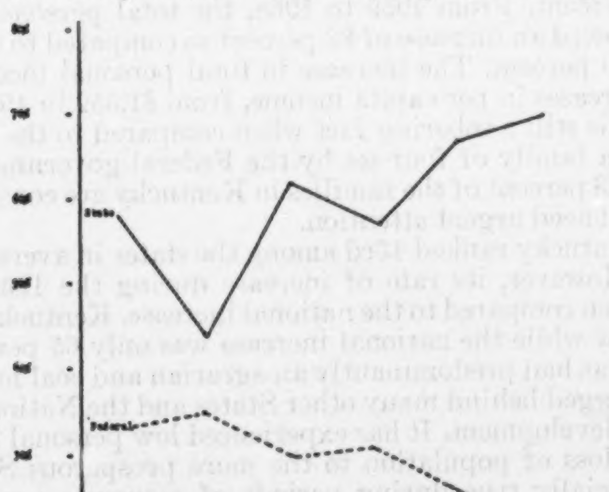


Figure No. 3

Changes in Percentages from Funding Sources for Kentucky Vocational Education 1964-65 through 1969-70

The pattern for developing a State program of vocational education in Kentucky has been largely that suggested in Federal legislation and in the Federal guidelines used to develop the "State Plan for the Administration of Vocational Education," a requirement if the State were to qualify for Federal financial support. The traditional pattern of vocational education oriented to certain occupational fields; such as, agriculture, trades and industry, and home economics, was continued in Kentucky until the passage of the Vocational Education Act of 1963. The provisions of this Act and subsequent Acts have generated many significant developments pertaining to adult, vocational, and technical education, and manpower training in Kentucky. Again. our pattern has been largely dictated by the provisions of the Federal legislation. I believe this has been highly beneficial to Kentucky for two basic reasons: (1) the pattern was established with the passage of the Smith-Hughes Act of 1917, and in taking advantage of the provisions of this legislation the State has learned to accept leadership and guidance from the Federal level; and (2) national concern in the early 1960's about the economy and the status of vocational education in providing for the manpower needs of the economy has led to the development of sound guidelines for the State to follow in redirecting, expanding, and improving its vocational education and manpower training programs.

Population and Economy of Kentucky.—According to the 1970 United States Census, the population of Kentucky increased about 4 percent during the "Decade of the Sixties," going from 3,160,555 to 3,282,954. This is a small growth rate when compared to the national gain of 15 percent. From 1959 to 1968, the total personal income in Kentucky showed an increase of 83 percent as compared to the national increase of 80 percent. The increase in total personal income was reflected by increases in per capita income, from $1,552 in 1959 to $2,645 in 1968. This is still a sobering fact when compared to the $3,721 poverty line for a family of four set by the Federal government in 1970. At this level 38 percent of the families in Kentucky are considered to be in poverty and need urgent attention.

In 1968, Kentucky ranked 43rd among the states in average per capita income. However, its rate of increase during the 1960's was encouraging when compared to the national increase. Kentucky's increase was 77 percent while the national increase was only 65 percent.

Kentucky has had predominantly an agrarian and coal mining economy. It has lagged behind many other States and the Nation as a whole in industrial development. It has experienced low personal income and a continuing loss of population to the more prosperous States. This has been especially true during periods of economic prosperity because of more favorable employment opportunities elsewhere. In recent years the situation has begun to change; the "decade of the sixties" brought expanding industrial development to many sections of the State and rapid population shifts from the rural areas to the growing industrial centers.

Although the population of Kentucky has not grown as rapidly as it has in many neighboring States, and in the nation as a whole, personal incomes have increased at a faster rate than the national average. Yet, it is still very unfavorable and considerably below the national average. The increase in personal income has permitted a significant increase in the per capita income and greater prosperity to those fortunate enough to have the marketable skills needed and to live within commuting distance of the industrial centers providing employment opportunities. New and expanding vocational education programs throughout the State have been important factors in bringing about the development of industries and in satisfying their requirements for trained manpower.

In 1968, fifty-three percent of the population in Kentucky still lived in rural areas. However, there was a marked increase in the movement from rural areas to the urban centers, especially to the spreading suburbs surrounding the major cities. To some extent, there was a significant movement from the heart of the major cities to the suburbs. Examples of this movement are evidenced by increases in the population of Fayette, Jefferson, Hardin, Laurel, Kenton, McCracken, Warren, Daviess, and Hancock Counties where industrial growth has occurred. Considerable decreases in population were experienced in such rural counties as Harlan (28 percent), Perry (30 percent), Letcher (25 percent), and Wolfe (13 percent). In the State's major metropolitan area, Jefferson County gained in population while Louisville, its county seat, lost population. This was largely due to a shift from the inner city to the suburbs.

The movement of poulation from rural to urban areas has resulted in a significant change in the economic posture of the State. In 1950, there were 17 counties that received 50 percent or more of their personal income from farm earnings; by 1968 not a single county in the State received as much as 50 percent of its total earnings from farming. In 1950, only 19 counties received less than 15 percent of their income from farming, by 1968, the number had increased to 51 counties. The economic shift away from farming was toward trade and service occupations associated with tourism, public employment, and financial agencies, and manufacturing, construction, and health occupations.

In 1968, only 10 of Kentucky's 120 counties generated $100 million or more of personal income. They were Jefferson, Fayette, Boyd, Campbell, Kenton, Daviess, Hardin, Christian, McCracken, and Warren Counties. These counties produced 62 percent of the State's total personal income. Jefferson County alone produced $2.5 million, or 30 percent of the State's total personal income. It accounts for approximately 21 percent of the total population and 30 percent of the total labor force in Kentucky.

Outside of a relatively few counties that account for a major portion of the State's population and personal income, Kentucky continues to be a State with a pitifully low per capita income and one with many areas of extreme poverty. In 1968, three-fourths of the 120 counties had per capita incomes below the State average of $2,645. There were 11 counties, all located in Eastern Kentucky, with less than $1,000 per capita income. With the exception of Boyd County, no Eastern Kentucky county had an average per capita income as high as $2,000. There are poor counties scattered throughout Kentucky that deserve a larger portion of the nation's goods and services. These counties have not benefitted from the economic, social, and educational advances experienced elsewhere across the Nation.

In 1970, of the 3,282,954 people in Kentucky, 965,338 were enrolled in a formal educational program. Of this number, 786,946 were enrolled in the elementary and secondary schools; 86,110 were enrolled in postsecondary, non-credit granting institutions; and 92,282 were enrolled in community colleges, senior colleges, and universities that grant college credit. There were 18,833 enrolled in private schools.

During the "decade of the sixties" the enrollment in public schools of Kentucky increased 14 percent. This was a growth rate of more than 3 times that of the total population. Kentucky ranks 40th among the States in this category.

As indicated in Figure 4, the enrollments in vocational education from 1965 to 1970 increased from 80,952 to 127,783, a gain of 36.6 percent. This is encouraging; however, it is not nearly enough when one considers the fact that only 25 percent of the secondary students are receiving any kind of occupational education, and only 18 percent when the enrollment in consumer and homemaking education is excluded. The percentage of enrollment needs to be above 80 percent, an increase of about 69 percent.

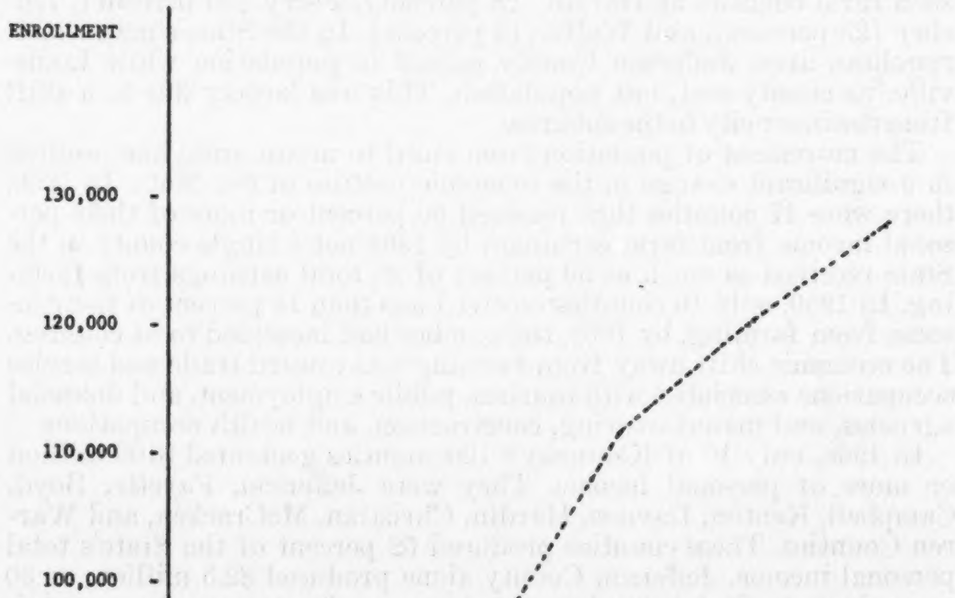


Figure No. 4

Enrollment in Vocational Education in Kentucky
1964-65 through 1969-70

Kentucky is plagued with too many small counties, small school districts, and small elementary and secondary schools. It has 120 counties, with 192 school districts (120 county districts and 72 municipal or independent districts); 1,266 public elementary schools and 350 public secondary schools. This is further fragmented by many private or parochial elementary and secondary schools operating throughout the State.

In an effort to provide opportunities of occupational education for all the people in Kentucky, the State has developed a system of area vocational schools (owned and operated by the State) and area vocational extension centers (owned by local school districts but operated by the State) to supplement the programs offered in the regular secondary schools. The State has 13 area vocational schools and 69 area vocational extension centers (the extension centers are approved by the State Board for construction, but only 41 were in operation in 1970). The area school concept was started in Kentucky in 1938 but expansion of the program was very slow until Federal legislation supporting the construction of such facilities was passed in the 1960's.

The common schools, area vocational schools, and area vocational extension centers are administered and controlled by the State Board of Education. In addition there are 13 community colleges (administered and controlled by the University of Kentucky Board of Trustees); two four-year colleges, and six state universities (administered and controlled by separate boards of regents) that are showing increasing interest in offering vocational and technical education programs. The State Board of Education is now contracting with most of these institutions for vocational teacher education programs, and postsecondary vocational and technical education programs.

It seems to be clearly evident that there is an urgent need for a reorganization, redirection, and coordination of the entire county structure and educational systems in Kentucky if the governing forces are going to be more effective in the allocation of limited resources and more responsive to the needs of the people in developing a more relevant program of "career education"—one that is more efficient, more economical, and more effective in its operation. This would require strong dynamic and dedicated leadership oriented to the total educational needs of the State which could prevail over the many self-serving interests that have been able to maintain the status quo which is a gradual falling behind proposition. Some of these changes would require changes in the State Constitution. This requires a referendum vote by the citizens of the Commonwealth of Kentucky.

Long-Range and Annual Planning.—Perhaps emphasis on program planning is the most significant requirement that was placed in the Vocational Education Act of 1963. It has caused the State leadership and local educational agencies to develop a systematic approach to determining the real mission and purpose of vocational education, conceptualizing a total or comprehensive program of vocational education, identifying the people that should be served and assessing their needs, and recognizing the importance of research, innovation, and evaluation to curriculum development.

In attempting to get appropriately organized at the State and local levels for long-range and annual program planning, it soon became evident that a limiting factor was the lack of understanding and competence regarding the systems approach to planning. There existed an acute need for intensive inservice training of all people responsible for this function at the State, region, and local levels. This included practically everyone employed in vocational education and others in administrative and supervisory positions who have responsibilities regarding vocational education.

We took advantage of Title II of the Vocational Education Act of 1963 and developed a "State Plan for the Education Professions Development" of the professional people responsible for vocational education in Kentucky. One of the first projects undertaken was a three-level institute on "long-range and annual program planning." The first-level institute was for all State-level employees. We had to depend largely on our State Research Coordinating Unit and outside consultants to conduct the institute. The second-level institute was conducted by the State-level personnel, with the coordination of the Research Coordinating Unit, for the professional personnel at the regional level. The third-level institute was conducted by teams composed of State and regional level personnel for the professional people in the local educational agencies charged with the responsibility of planning. The institutes have been followed by the organization of mini-teams composed of State and regional personnel who work with local educational agencies on continuing problems of long-range and annual planning.

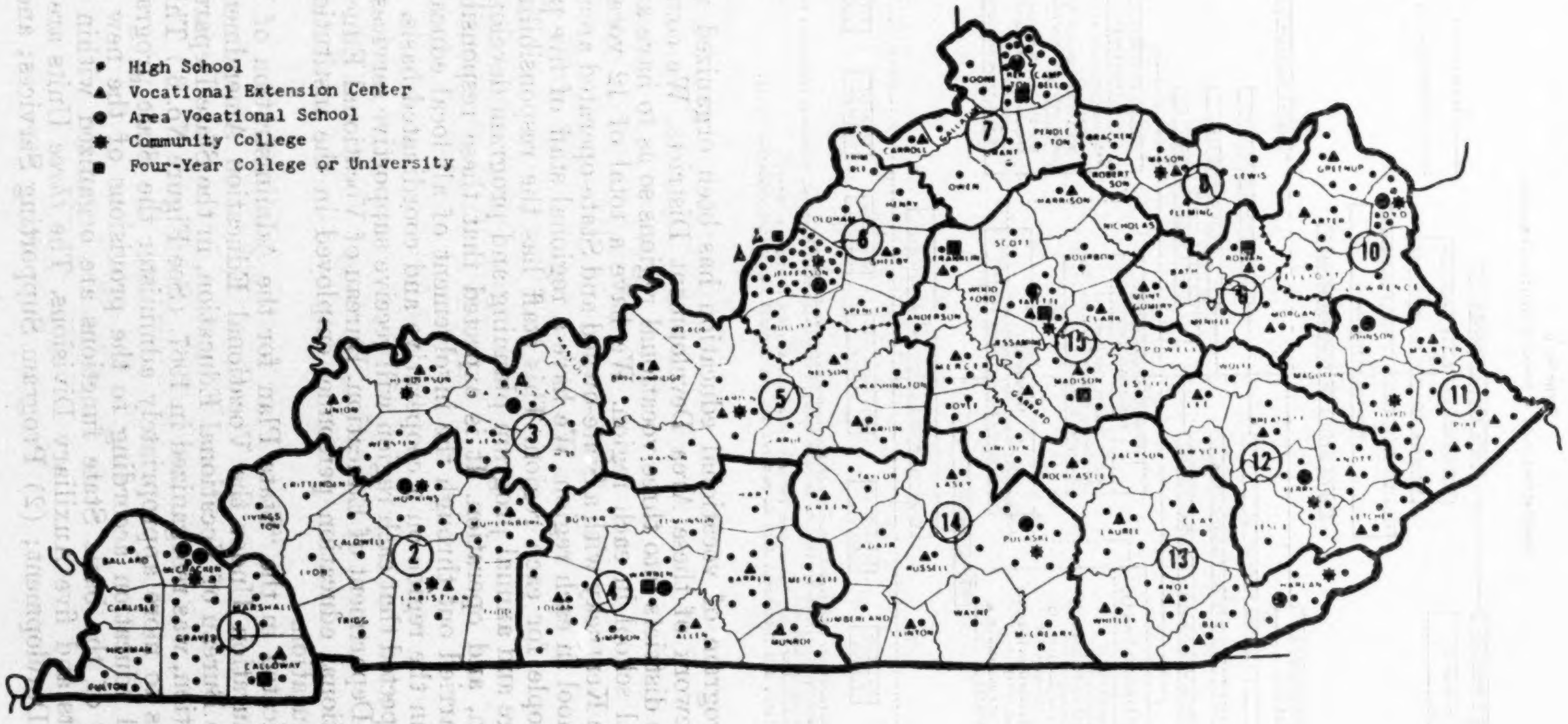
This program has been enthusiastically supported throughout the State. We feel that there is a long way to go before we will have developed the kinds of understanding, dedication, and competencies required for sound long-range and annual program planning as an effective tool for program management. However, we are confident that we have gone a long way in that direction. The plans received this year are a big improvement over those received last year. We expect further improvement at all levels next year.

Organization and Administration.—The provisions of the Vocational Education Act of 1963 and other Federal programs clearly indicated the need for changes in the organizational structure and administrative patterns for vocational education in Kentucky. The first action in this direction was taken in 1965. By Executive Order, the Governor of Kentucky reorganized the State into 15 Area Development Districts to facilitate cooperation of the State and Federal governments on projects of mutual concern. (See Figure No. 5.) This likewise facilitated cooperation of State agencies on mutually supported projects.

Figure No. 5

LOCATION OF AREA VOCATIONAL SCHOOLS AND EXTENSION CENTERS,
HIGH SCHOOLS, COMMUNITY COLLEGES,
AND
FOUR-YEAR COLLEGES OR UNIVERSITIES

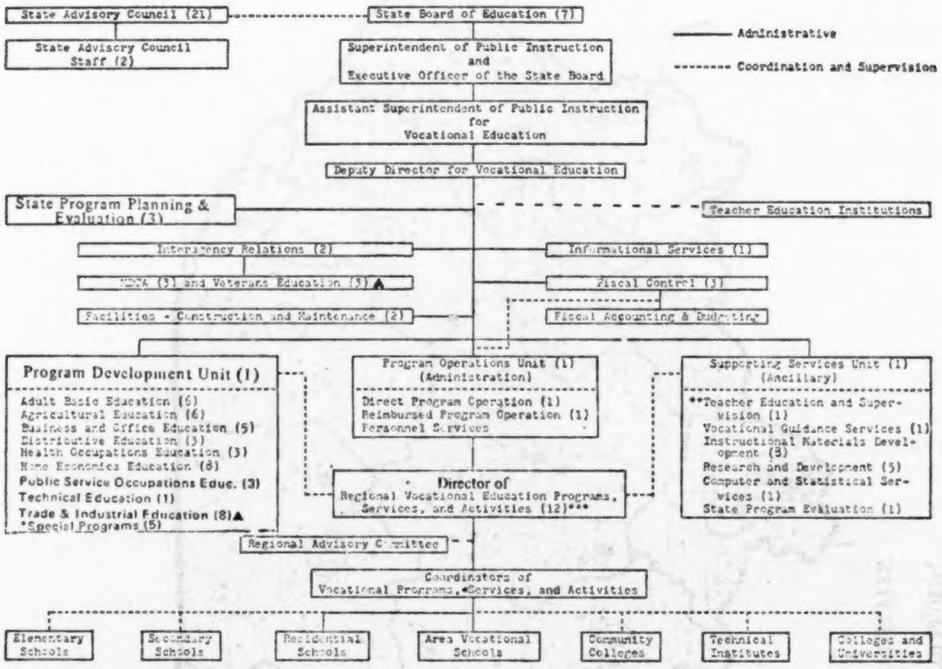
- • High School
- ▲ Vocational Extension Center
- ● Area Vocational School
- ✸ Community College
- ■ Four-Year College or University



Note: The above vocational education regions conform to the state's economic district boundary lines with the exception of three regions each of which includes two of the economic districts.

Figure No. 6

ORGANIZATIONAL CHART -- BUREAU OF VOCATIONAL EDUCATION


State Advisory Council (21)
State Board of Education (7)
Administrative
Coordination and Supervision
State Advisory Council Staff (2)
Superintendent of Public Instruction and Executive Officer of the State Board
Assistant Superintendent of Public Instruction for Vocational Education
Deputy Director for Vocational Education
State Program Planning & Evaluation (3)
Teacher Education Institutions
Interagency Relations (2)
Informational Services (1)
MDTA (3) and Veterans Education (3)▲
Fiscal Control (3)
Facilities - Construction and Maintenance (2)
Fiscal Accounting & Budgeting
Program Development Unit (1)
Adult Basic Education (6)
Agricultural Education (6)
Business and Office Education (5)
Distributive Education (3)
Health Occupations Education (3)
Home Economics Education (8)
Public Service Occupations Educ. (3)
Technical Education (1)
Trade & Industrial Education (8)▲
*Special Programs (5)
Program Operations Unit (1) (Administration)
Direct Program Operation (1)
Reimbursed Program Operation (1)
Personnel Services
Supporting Services Unit (1) (Ancillary)
**Teacher Education and Supervision (1)
Vocational Guidance Services (1)
Instructional Materials Development (3)
Research and Development (5)
Computer and Statistical Services (1)
State Program Evaluation (1)
Director of Regional Vocational Education Programs, Services, and Activities (12)***
Regional Advisory Committee
Coordinators of Vocational Programs, *Services, and Activities
Elementary Schools
Secondary Schools
Residential Schools
Area Vocational Schools
Community Colleges
Technical Institutes
Colleges and Universities

*Includes: Disadvantaged, Handicapped, Work-Study, Cooperative Vocational Education
**Includes: Education Professions Development, Exchange Program for Professional Development, Vocational Cooperative Program for Teacher Education
***Includes: Vocational Education Region which includes one or more Economic Development Districts
▲ MDTA, Veterans, and Industrial Arts do not receive any federal vocational education funds.

The program of vocational education has been organized within the framework of these Area Development Districts. We combined six of the districts into three vocational regions so as to have an area vocational school in each region. We have a total of 12 vocational regions in Kentucky with a State-owned and State-operated area vocational school in each region. We have a regional staff of five professional people for each region. This staff has the responsibility for long-range and annual program planning and program development, evaluation, and operation. It is expected that these responsibilities will be carried out through the involvement of all local educational agencies in the region on a cooperative and coordinated basis.

It is expected that each region will receive supportive services from the State Department of Education, Bureau of Vocational Education, and vocational education personnel employed in the institutions of higher education.

As indicated in the "State Plan for the Administration of Vocational Education Under the Vocational Education Amendments of 1968," the Bureau of Vocational Education, in the State Department of Education, was reorganized in 1967. (See Figure No. 6.) This was done so as to more appropriately administer the State program of vocational education according to the provisions of the new State Plan. All of the basic State functions are organized within three basic Units and five Auxiliary Divisions. The *three* Units are: (1) Program Development; (2) Program Supporting Services; and (3)

Program Operations. The *five* Auxiliary Divisions are: (1) Fiscal Control and Financial Accounting; (2) Interagency Relations; (3) Facilities Construction and Maintenance; (4) State Program Planning and Evaluation; and (5) Information Services.

The State Board for Vocational Education contracts with six State universities and three senior colleges for teacher education programs and some associate degree programs. The associate degree programs are primarily in health occupations. We have the State Research Coordinating Unit and the State Instructional Materials Laboratory centered at the University of Kentucky.

Financing Vocational Education.—Vocational education programs, services, and activities in Kentucky receive financial aid from three basic sources: State (70 percent), Federal (20 percent), and local (10 percent). (See Figure No. 2.) This is somewhat inaccurate because local funds are included in the State portion that finances the State Foundation Program for elementary and secondary education. About 20 percent of the Foundation Program funds come from local school districts.

State funds include the following sources: (1) State Foundation Program fund that finances secondary vocational education programs through the allocation of vocational units based on local needs; (2) separate State appropriation for vocational education to pay for postsecondary and adult programs and, to some extent, the extra costs of secondary programs which are offered in the area vocational schools and area vocational extension centers; (3) separate State appropriation to the institutions of higher education which match Federal funds used to support the vocational teacher education programs that they offer; and (4) State Trust and Agency funds received from student fees, sales and services, and vending machines.

Federal funds may come from several Acts. The major sources are the Smith-Hughes Act, Vocational Education Amendments of 1968, Appalachia Redevelopment Act, Economic Development Act, Manpower Development and Training Act, Adult Education Act, and Veterans Rehabilitation Act.

In addition to the Foundation Program funds, local leeway taxes are assessed in all local school districts for the purpose of enriching the instructional program and financing school facilities.

The policies and procedures of the State in allocating funds for each population group to be served and for the categories of programs, services, and activities specified in the Kentucky State Plan for the Administration of Vocational Education initially call for the development of an annual and five-year projected plan for vocation by each operating unit that expects to participate in the statewide program. It is intended that the completed plan shall indicate comprehensive study of the local situation with the expressed intention of determining: (1) the interests, needs, and capabilities of the people to be served; (2) the extent of economic depression, overall unemployment, unemployment of youth, and the rate of school dropouts; (3) the availability of employment opportunities for the people upon completion of their training; (4) the availability and intended distribution of local funds; and (5) the anticipated amount of State and Federal funds needed to supplement the local funds in implementing the local vocational education plan. Each operating unit that receives financial support is expected to update its annual and five-year projected plan for vocational education each year and furnish the supporting evidence required to substantiate each item included in the plan.

The State and Federal funds available for vocational education in Kentucky are *first* allocated on a broad statewide basis, in terms of the purposes stated in the 1968 Vocational Act and the State Plan for Vocational Education to assure adequate support for each of the purposes included in the overall State program before actual allocation to local educational agencies and other operating units is determined.

The programs, services, and activities include administration and leadership; research, special demonstration and experimental programs; State program planning and evaluation; teacher education and supervision; construction of vocational facilities; curriculum development and the preparation of instructional media; vocational instruction; vocational guidance services; and transportation of students.

In the statewide allocation, actual funds that must be used for certain categories to meet the percentage requirements of the Federal legislation are set aside and used for those purposes. This includes Part B funds for the disadvantaged (15 percent), handicapped (10 percent), and postsecondary vocational education (15 percent), and the funds made available to support other special categories identified in the Federal Acts.

State and local funds made available for vocational education are allocated to the different program areas identified in the State Plan on the basis of need as expressed and substantiated in the annual program plans.

In the support of vocational education programs, service, and activities, under Part B of the 1968 Vocational Act, overall state matching requires that Federal funds shall not exceed 50 percent of State and local funds, except that 100 percent of the cost of programs for the disadvantaged in areas of high concentration of youth unemployment and school dropouts may be financed with Federal funds. This is not a problem in Kentucky because State and local funds exceed Federal funds by a 5 to 1 ratio.

In allocating funds throughout the State, the basic criteria that are taken into consideration include: (1) manpower needs and job opportunities; (2) vocational education needs; (3) relative ability to provide resources; (4) relative cost of programs, services, and activities; and (5) the rate of school dropouts.

Funds are allocated to local school districts that receive local tax support, to local education agencies which are not aided by local taxes but receive a direct appropriation from the State legislature, and for ancillary or supporting services provided at the State and regional levels. The criteria explained in the previous paragraph are used to determine relative priorities for programs, services, and activities included in the applications received by the Assistant Superintendent for Vocational Education.

In the allocation of Part B funds, these criteria were used to develop a mathematical formula to determine the apportionment factor for each eligible local school district in the State. Once the amount of funds to be allocated to local school districts is determined, then the apportionment factors multiplied by the amount of funds available will indicate how much each local school district is eligible to receive if approvable plans are submitted. This procedure is similar to that used by Federal agencies in determining the amount of Federal funds that are due each State.

In the allocation of Part B funds to local educational agencies, which are not aided by local taxes but are supported by a direct appropriation from the State Legislature, the same mathematical formula is used to determine the apportionment factor for each of the 12 vocational education regions of the State. The regional apportionment factors are then used to determine the amount of Federal Part B funds that each vocational education region is eligible to receive. Within each region the Federal funds are allocated to eligible local educational agenices on the basis of approved school budgets, approved programs, or approved projects.

Any Federal Part B fund not claimed by eligible local educational agencies shall be distributed to other eligible local educational agencies that have requested additional funds on the basis of approved programs, services, or activities that are included in their annual plans.

All other Federal funds made available to Kentucky under the 1968 Vocational Act and other Federal Acts to support adult, vocational, and technical education programs are allocated to eligible local educational agencies on the basis of approved programs or projects. Definite criteria and guidelines have been established for the development and implementation of such programs and projects.

Advisory Committees.—The creation of the State Advisory Council has been a big asset to vocational education in Kentucky. In Kentucky, it is appointed by the Governor because the State Board of Education is appointed by the Governor. We have a Council of 21 members. They are appointed for three-year terms with one-third of them replaced each year. The Council has employed a full-time executive director and a full-time administrative assistant. They operate independently of the State Department of Education but maintain close working relations and communications with the Bureau of Vocational Education.

Actions of the State Advisory Council in holding public hearings on vocational education throughout the State, in evaluating significant aspects of the State program of vocational education, in consulting with the State Board of Education, in holding quarterly meetings on vocational education, in working with the National Advisory Council, and through many other activities has helped develop an awareness of the importance of vocational education and its status in Kentucky to the attention of the general public. This has helped to make vocational education programs, services, and activities more relevant to the needs of the State.

At the request of the State Advisory Council, the State Board of Education, upon recommendation of the State Superintendent of Public Instruction, has appointed a regional advisory council for each of the 12 vocational regions in Kentucky. Each regional advisory council has 15 members who are representative of the social and economic groups in the region. These regional advisory councils are expected to advise the regional staff and the Bureau of Vocational

Education on the needs for vocational education in the region, evaluate the effectiveness of existing programs, and make recommendations on changes needed. The regional advisory councils will be expected to communicate with the State Advisory Council and coordinate activities where feasible.

In addition to the State and Regional Advisory Councils, local educational agencies may use advisory committees to help assess local needs, evaluate local programs, and improve community relations. Their recommendations will be made available to the regional advisory councils.

In addition to the advisory councils and the local advisory committees, each occupational area is encouraged to use a craft committee to help keep the program relevant to the needs of the students and the manpower requirements of the labor market.

Advisory councils, advisory committees, and craft committees serve a vital function in bringing the communication gap between the vocational education program and the people who stand to benefit from the program. This includes students, employers, and customers receiving the services or goods ultimately produced by the students. They need to be continued and strengthened. Funds should be continued and possibly increased for the State Advisory Council as it expands its capability in carrying out the assigned responsibilities designated in the Vocational Education Amendments of 1968.

Significant progress has been made in Kentucky regarding the attitude, understanding, and relationship between the State Advisory Council and the State Board of Education. The State Board has come to the point of depending on the State Advisory Council for advice, council, and recommendations on matters concerning vocational education that are brought before the State Board for approval.

It is expected that this relationship will be strengthened in the future because the State Advisory Council has access to public opinion in many areas that is not readily available to the State Board. Representatives of business and industry and members of other important groups have a means of communication with the State Board of Education, through the State Advisory Council, on matters pertaining to vocational education that did not previously exist. Likewise, the State Board can seek advice and recommendations from the Advisory Council on complicated problems pertaining to vocational education.

PEOPLE NOW BEING SERVED

The Congress made a wise decision in identifying the five categories of people to be served by vocational education under provisions of the Vocational Education Amendments of 1968. This is a much needed expansion in services that would not have occurred without motivation and financial support at the Federal level.

We have given lip service to the idea that the central purpose of education in our society is to develop the capacities of every educable and trainable person so they will be able to manage themselves in the most effective manner. We have fallen far short of that ideal and have ignored or neglected too many people for much too long. Our educational system has been too selective in its attention to the educational needs of the people, and it has been too much general educational college oriented. This kind of orientation has focused too much attention on the people who were "easy to reach and easy to teach."

The idea that relevant education is needed by all members of our society if they are going to be productive participants in the labor market and useful citizens in our society is a relatively new concept in educational circles. The advances in science and technology and their impact on the way of life for our entire society has brought about widespread concern regarding the educational needs of all the people and the inadequancies of the educational system in meeting their needs.

The function of education is to enable people to adjust to their social and economic environment, and to change the environment when necessary, to the end that the greatest and most enduring satisfaction may accrue to each person and to society. The fulfillment of this function will depend largely on our ability to develop and maintain an effective educational system—a system designed to help each person develop his capabilities so that he can make his maximum contribution to society and, in return, reap the full benefit of what society has to offer. Our society has the right to make certain demands of all of its educable and trainable members. Every such person is entitled to acquire as his birthright an education that will enable him to meet the demands which society imposes on him. We accept the premise that the primary purpose of education is to foster and promote the fullest individual self-realization for all of our people. Achieving this goal will require an understanding of and commitment to the proposition that education is an essential instrument for social and economic advancement and for human welfare.

There seems to be a sense of urgency moving across the country to get our "educational house in order" if we are going to survive. The concept of "career education" offers a good possibility for bringing the entire educational establishment into a more meaningful and accountable comprehensive program—one that will enable each state, with appropriate Federal support, to develop a more cohesive structure.

Early Childhood Education.—This is the only area that the Vocational Education Amendments of 1968 does not clearly address itself. Presumably, this will be done through amendments to the Elementary and Secondary Education Act and possibly other Federal legislation. It is desperately needed, because the foundation for career education is laid in early childhood before students reach the secondary level. Too often they become school dropouts or they have lost their enthusiasm for continued learning before they reach high school.

The only possibility for attention to the career education needs below the high school level in the Vocational Education Amendments of 1968 is through exemplary programs and research and special projects. These are limited because there is no provision for continuing support of successful programs at the elementary level when these special projects have run their course. Without some Federal financial support on a continuing basis, it has been practically impossible to secure state and local financial support.

In Kentucky, we have placed a big emphasis on testing the "career education concept" in the use of our exemplary and research funds. We have three school systems that are conducting exemplary projects that include the elementary grades. These projects are oriented to the K through 12 career education concept. The projects are in their second year. They are in Pikeville, Clay County, and Henderson County. The major problems have been (1) conceptualizing the overall pattern; (2) inservice training of the professional personnel to adequately test the concept; and (3) implementation of the program in logical steps. It is a challenging undertaking because it necessitates change in practically every aspect of the school program. Change in philosophy, orientation, professional development, curriculum development, and instructional practices start at a slow pace. Fortunately, there are signs indicating the possibility of acceleration at an increasing rate where involvement brings motivation and enthusiasm. Changed attituds toward learning on the part of students is contagious to the teachers. Their morale and professional interest seem to be positively affected when the interests of students are stimulated by meaningful learning experiences.

We hope to have at least two more school systems initiate exemplary projects on aspects of career education in fiscal year 1972. We want this effort to result in a "career education model" for Kentucky. This would be the basis for encouraging and promoting curriculum projects designed to gradually implement the kind of program needed, from K through adult and continuing education, throughout the state.

Secondary Education.—The main thrust of the vocational education program in Kentucky has been at the secondary level. This program has been provided through 350 high schools, 13 area vocational schools, and 41 vocational extension centers. The State Board of Education has approved the construction of 28 additional vocational extension centers. Of the 203,989 students enrolled in secondary education in 1970, only 40,017, or 19.6 percent, were enrolled in vocational education. This was an increase of 6,426 over that of the previous year Students in private schools were enrolled in these vocational programs through a shared-time agreement with the local school districts.

Program development at the secondary level has not expanded and improved as rapidly as it should have because of the lack of: (1) sufficient vocational units and funds; (2) adequate facilities for carrying on the program needed; (3) sufficient supply of teachers and support personnel; and (4) understanding and total commitment on the part of those responsible for education on how best to proceed in developing the comprehensive vocational education programs needed.

Postsecondary Education.—Postsecondary vocational and technical education in Kentucky is primarily offered in the area vocational schools and community colleges. To some extent, it is offered in the high schools, vocational extension centers, senior colleges, and universities.

Enrollment in regular postsecondary programs has been gradually increasing over the years, but it needs to be greatly accelerated to meet the increasing demands of the labor market. During 1969–70, these programs served 7,074 students. This was an increase of 745 over that of 1968–69. We do not have an accurate count on the postsecondary enrollment in programs not supported with Federal and state funds. We know there are others enrolled in private schools, programs conducted by large industries and, to some extent, the universities; but the number is not extensive in Kentucky.

Limitations on the expansion of postsecondary programs has been due to several factors. Perhaps the major limiting factor has been the low priority given to it compared to the interest shown in elementary, secondary, and higher education; all of which have been largely locked into a college preparatory sequence. Budget restrictions have greatly reduced operation funds in this category because of its low priority in the minds of the decision makers. Also, there is a limited number of facilities for many essential programs. This is especially true in health occupations and other highly technical fields. Kentucky is fortunate in having a system of 13 area vocational schools and 13 community colleges. (See Figure No. 5.) In seven instances an area vocational school and community college are located in the same city; two are in the same county; and four of the community colleges are cities that also have vocational extension centers.

We are attempting to develop close coordination and cooperation between the area vocational schools and community colleges so as to obtain greater utilization of professional personnel and facilities and eliminate unnecessary duplication of efforts. We have the opportunity to expand adult, vocational, and technical education programs in these facilities if we can obtain the needed operation funds.

Adult and Continuing Education.—Regular adult vocational education programs are offered as adult preparatory or supplementary programs. They are largely financed by Federal and state funds. More than any other program offered, they are adversely affected by delays in Federal appropriations. This is true because these programs are planned for short periods of time and they can serve as a buffer for any cutbacks in the Federal appropriation. Delayed funding has made it extremely difficult to organize and carry out many programs that were requested and needed because of the short period of time left after the appropriations were determined.

A total of 52,431 adults were enrolled in either the preparatory or supplementary vocational education programs in 1969–70. This program needs to be greatly expanded to help adults upgrade themselves so as to keep up with the technological changes affecting their jobs. Emphasis is given to this level of training in long-range and annual planning. The plans are continually being revised to develop the instructional programs needed by all adults who should be employed for a working society.

Vocational Education for the Disadvantaged.—Education of the disadvantaged in Kentucky is gradually moving to a top-level priority. This is essential because of the large number of people in this category and the great need these people have for vocational education so they can become productively employed and have the economic means of providing a wholesome way of life for themselves and their families. The seriousness of the disadvantaged problem in Kentucky is indicated by these facts: about 15,796 have withdrawn from the public schools; about 17,282 youth 16 and 17 years old are not in school; about 61,713 are unemployed; about 153,892 are public assistance recipients; about 291,237 have a family income of $3,000 or less; and about 265,502 are underutilized largely because of inadequate employable skills.

We are attempting to serve the disadvantaged with a variety of programs, services, and activities; all of which are largely financed with Federal funds. The Vocational Education Amendments of 1968 provide financial support through Part A and Part B funds; the Adult Education Act of 1966 provides training for those who are seeking the Eighth Grade Equivalency Certificate and the High School Equivalency Certificate; the Manpower Development and Training Act of 1962 provides training for unemployed and underemployed adults; and the Bureau of Vocational Education serves as the State Approval Agency for Veterans Education and Training.

We have attempted to develop remedial programs for the disadvantaged people in Kentucky, to the extent possible, within the same organizational structure, and in the same facilities, used for the regular development vocational programs. This enables us to make maximum use of personnel, facilities, and supporting services in serving the vocational education needs of the people. Programs for the disadvantaged are being offered in the regular high schools, area vocational schools, area vocational extension centers, community colleges, and correctional institutions.

In preparing to operate vocational programs for the disadvantaged, it was recognized that a concerted effort had to be made to acquire a better understanding of disadvantaged people and their needs, special program requirements, employment possibilities, and innovative approaches essential for success in working with them. Seminars and workshops sponsored by the U.S. Office of Education were helpful in developing essential understandings and a sense of urgency to shape up and develop realistic programs to meet their needs. Support through the Education Professions Development Act enabled us to conduct institutes to prepare teachers to work with the disadvantaged. This kind of support must be continued.

Policies governing the use of funds for the various programs for the disadvantaged have resulted in the coordinated effort of many agencies, organizations, and groups who are concerned about these people in Kentucky. This cooperation has been of great benefit to this program and to everyone involved. We have cooperative agreements with the Department of Child Welfare, Department of Corrections, Division of Public Assistance, Department of Economic Security, Model Cities, Neighborhood Youth Corps, State and Regional CAMPS Committees, the State MDTA Operations Committee, and the Bureaus of Vocational Rehabilitation and Instruction (Division of Special Education) in the State Department of Education. In addition, we have received excellent cooperation from the institutions of higher education in conducting preservice and inservice training programs for the people employed to work with the disadvantaged and in curriculum development.

To the extent possible, we have tried to keep the disadvantaged students in the regular program of vocational education and then give them the individualized attention they need to remove their disadvantages. Only, when it is absolutely necessary, for the benefit of the students, do we desire to organize segregated classes. We believe the normal situation for learning is most advantageous for all students where possible. This calls for greater attention to inservice training of teachers so they will be adequately prepared to give the individualized instruction needed. Perhaps more attention needs to be given to the feasibility of using teacher assistants or aides in providing the individualized instruction. We have not explored this avenue to any appreciable extent in Kentucky. However, our State Plan provides for it.

In 1969–70 and 1970–71, a total of 21,908 disadvantaged students were identified and served by programs supported under provisions of the Vocational Education Amendments of 1968. Of this total, 9,379 were enrolled in regular vocational education programs; 1,500 were enrolled in separate vocational classes; 4,651 were enrolled in 71 multi-program area projects; 6,093 were enrolled in 72 special programs designed specifically for them, they were not identified with any particular vocational education area; and 285 were served through 14 programs coordinated with other agencies.

In order to develop appropriate program policies, guidelines, and applications and to assure an adequate review and disposition of all proposals received, a task force, made up of representatives from the different vocational education program areas, was formed when we initiated this program. During the fiscal years of 1969–70 and 1970–71, the State Department of Education, Bureau of Vocational Education, in Kentucky, reviewed and approved 440 plans submitted to serve disadvantaged persons. Some of the more significant services and activities included in all of the vocational education programs approved for the disadvantaged were:

(1) Special testing and guidance services;

(2) Selecting, employing, and training personnel to serve as part-time instructors, teacher aides, tutors, counselors, and consultants;

(3) Planning and conducting field trips related to the instructional program;

(4) Securing and producing specially designed instructional materials;

(5) Recruiting disadvantaged persons for enrollment in the programs;

(6) Providing on-the-job work experience for the students;

(7) Providing opportunities for work-study for those who needed earnings to pursue their training (Part H funds); and

(8) Conducting surveys to find employment opportunities for persons completing the training.

Some of the more significant projects that have been approved are as follows:

1. Nine learning laboratories were established in the area vocational schools. These laboratories are designed to give special attention and remedial help to the disadvantaged in the form of special instructional personnel, instructional aids, and reference materials.

2. Seven community colleges initiated developmental programs designed to orient out-of-school youth and adults to career opportunities and provide remedial instruction needed so they could enroll in the vocational education program of their choice in either the community colleges or the area vocational schools.

3. A program entitled "TV High School—Series for GED Certificates," conducted in cooperation with the State Educational Television System to enable disadvantaged youth and adults throughout the state to complete requirements for the High School Equivalency (GED) Certificate by the time they complete their vocational training.

4. Projects were approved for two state institutions which were to be carried out in cooperation with the Department of Corrections and the Department of Child Welfare. One is an office education program for women. The other one is a building maintenance program for delinquent boys.

5. A tutorial resource center for disadvantaged students in grades 9–12 selected from the different vocational education program areas. The center was developed and staffed to provide students an orientation to the "world of work," remedial instruction, instructional reinforcement, and guidance toward employment opportunities.

6. Programs to prepare nurse orderlies, service station attendants and mechanics, and employees in distributive education.

7. A Pre-Journeyman Employment and Training Program (Pre-JET) designed to provide orientation to work skills for young men in a model city area.

8. Establishment of a Resource Center for the Disadvantaged as a part of the State Vocational Instructional Materials Laboratory to serve the state.

Mental and Physical Handicapped.—The Bureau of Vocational Rehabilitation and the Division of Special Education in the State Department of Education have worked closely with the Bureau of Vocational Education in developing the basic policies and guidelines for programs, services, and activities in vocational education to serve the physical and mental handicapped in Kentucky. Assistance and cooperation also have been received from the Department of Child Welfare and the Division of Public Assistance.

This is an entirely new venture for vocational education. It has offered a real challenge in getting oriented to the characteristics of these people, understanding their basic needs for vocational orientation and training, developing appropriate instructional programs. determining their opportunities for employment, and helping them get placed in jobs.

We have sponsored conferences, workshops, and inservice training institutes to prepare administrators, supervisors, curriculum specialists, counselors, and teachers to develop and implement appropriate programs for the handicapped who want and need vocational training.

It is estimated that there are 29,136 handicapped persons, 6 to 17 years old, in Kentucky. Their handicaps fall into eight categories with about 50 percent of them mentally retarded. In 1969–70 and 1970–71, we feel that a great deal of progress was made in developing appropriate awareness, understanding, and action toward the development of a sound approach in serving the physical and mental handicapped vocational students in Kentucky. Programs have been offered through the high schools, area vocational schools, community colleges, the school for the Deaf, the School for the Blind, and the Frenchburg Boys' Center for Wards of the Department of Child Welfare.

The types of programs, services, and activities that have been approved are:

(1) Orientation to the world of work for the educable mentally retarded;

(2) Supportive individualized instruction for handicapped students enrolled in regular vocational programs;

(3) Preparation of special instructional materials and purchase of special equipment for handicapped students in regular vocational programs;

(4) Special class in motel and hotel housekeeping for educable mentally retarded girls;

(5) Inservice training workshops and institutes for teachers employed to work with handicapped students;

(6) Special summer program on "orientation to the world of work" conducted by the School for the Blind;

(7) Inservice training program for professional personnel employed to operate the Louisville Occupational Training Center for the handicapped;

(8) Work experience programs for exceptional children; and

(9) Career guidance and physical assistance for wheelchair students.

Manpower Development and Training.—We consider the MDTA program to be one of the most successful Federal manpower training programs ever conducted in Kentucky. It is administered in cooperation with the State Department of Economic Security. The Department of Economic Security is responsible for establishing need, selection and referral of trainees, placement, and payment of personal benefits to eligible trainees.

Vocational education is responsible for the training, utilizing both public and private facilities. All of the programs linked with MDTA (WIN, CEP, RAR) are coordinated through the regional and state CAMPS Committees. The type and location of MDTA project proposals to be submitted by local and regional operations committees are determined and recommended by the State MDTA Operations Committee. Vocational education is represented on all of these committees.

Since the beginning of MDTA in 1962, Kentucky has trained approximately 22,000 unemployed and underemployed persons in institutional courses, with about 80 percent of those completing their training being placed in jobs related to their training. Approximately 70 percent of those enrolled completed their training. Kentucky has received approximately $40 million to conduct MDTA institutional training programs with about $14 million going to vocational education to pay for the cost of instruction. The remaining $26 million went to the Department of Economic Security to pay training allowances, travel, and subsistence to the eligible trainees.

Adult Basic Education.—Since passage of the Adult Education Act of 1966, Kentucky has served 71,956 adults, ranging in age from 16 to 73. Many of these adults were classified as illiterates. The Division of Adult Education, in the Bureau of Vocational Education, has issued 3,841 Eighth Grade Equivalency Certificates and 25,000 High School Equivalency Certificates to adults. A countless number of these adults have enrolled in vocational education programs and other manpower training courses to gain employment skills or to upgrade their employment status. This program provides an excellent supplement to the development and remedial vocational education and manpower training programs for many out-of-school youth and adults. It is a valuable addition to the learning laboratories in the area vocational schools. It needs increased Federal financial support, especially at the high school level.

Veterans Education and Training.—The State Department of Education, Bureau of Vocational Education, serves as the State Approving Agency for Veterans Education and Training, under Public Law 89–358. The State performs the necessary and required approval and supervision functions in all institutions, both private and public, including institutions of higher education, those below college level, area vocational schools, apprenticeship and other on-the-job training establishments and flight schools.

Currently in Kentucky there are 575 schools and businesses participating in the veterans education and training program with approximately 7,200 veterans, war orphans, widows, and wives of veterans receiving training. Some 840 of these are in apprenticeship and other on-the-job training programs, while 6,360 are enrolled in institutional training. It is expected that the enrollment in veterans education and training programs will show a significant increase in the next few years.

ANCILLARY OR SUPPORTING SERVICES

Perhaps the greatest challenge handed to the leaders responsible for adult, vocational, and technical education is that of conceptualizing and developing relevant and effective comprehensive programs of vocational education at the operating level. It is intended that these programs will be planned and implemented to meet the needs of "persons of all ages" who should reasonably expect gainful employment as a result of the training.

Ancillary or supporting services and activities were included in the provisions of the Vocational Education Amendments of 1968 to assure quality in all vocational education programs that were to be implemented. These services and activities are vital to the determination and implementation of comprehensive vocational education programs. In fact, they must become an integral part of these programs. If an effective job of long-range and annual planning is to be accomplished at the operations level, it must be supported by all of the ancillary services indicated in the Vocational Education Amendments of 1968.

Through a sound program of education professions development the local people responsible for vocational education programs, services, and activities must acquire the competencies needed to perform the ancillary services required to assure the level of quality expected in all the programs to be offered. They should expect additional support in these areas from the regional and state level personnel.

State administration and leadership, teacher training and supervision, and state program evaluation need to be oriented to the concept of "a comprehensive vocational education program at the local level" and the kinds of people needed to develop and implement such a program. If these people are expected to engage in long-range and annual planning, research and special projects, exemplary or innovative projects, special demonstration and experimental programs, program evaluation, curriculum development, and the development of instructional materials, then it is reasonable to expect the State Department of Education, Bureau of Vocational Education, and the

Vocational Teacher Education Divisions in institutions of higher education to develop preservice and inservice teacher training programs that will produce professional personnel with these competencies. We need comprehensive teacher education programs in institutions of higher education that are oriented to the kinds of overall vocational education programs that should be in operation at the local level. They need to understand the jobs to be performed and the kinds of competencies needed by the people that should be employed to perform these jobs. Their programs should be designed to turn out the kinds of people that are needed to operate effectively in comprehensive programs of vocational education. It must be a team effort with members capable of performing a variety of functions, all of which are oriented to the development of vocational programs, services, and activities that are relevant to the needs of the people.

Education Professions Development.—In Kentucky, a professional development program for vocational education personnel has been implemented. It is being amended annually to provide training programs at all levels for teachers, supervisors, teacher educators, and administrators.

During 1969–70, the State Board of Education, through the vocational staff in the State Department of Education and the institutions of higher education, provided institutes, workshops, and conferences for all vocational education personnel in the State. Seven institutes, enrolling about 200 persons, were conducted by the institutions of higher education. Two institutes were held for people working with the disadvantaged, two for the handicapped, two for administrators, and one for the state staff.

The main thrust of the professional development under the new State Plan is to organize training programs for vocational education personnel across occupational or service lines. Task forces have been established by functions. These functions were identified to include the major areas of vocational education. They are program administration and leadership, teacher education and supervision, research and special projects, curriculum development and preparation of instructional materials, exemplary programs, cooperative vocational education and work study, program evaluation, vocational guidance, prevocational, secondary, postsecondary, adult, disadvantaged, handicapped, manpower training, youth organizations, and facilities construction and maintenance.

In addition to the task forces, each occupational area is organized into a division with a primary responsibility for program development. Personnel in the vocational divisions are also members of the various task forces. Decisions made by the task forces regarding the different functions are implemented by the different divisions when they carry out their responsibilities regarding program development. In this regard each division develops a plan for the professional development of the vocational personnel in the occupational area to which it relates so they will be prepared to perform satisfactorily. By giving particular attention to the major functions and then how they apply to the different occupational areas, a more viable state plan for professional development has been developed. New priorities came to light and new needs were identified.

The stimulus, direction, and financial support given to the professional development of vocational personnel through the provisions of the Vocational Education Amendments of 1968 are getting good results. They need to be continued and expanded. This program is vital in helping vocational education personnel reorient themselves and get retrained for the new programs, services, and activities they are asked to carry out to meet the changing needs of the people.

Research and Related Projects.—If vocational education is to meet the needs of people, program planners must know what the needs are and what programs should be provided to meet these needs. This requires objective information on a continuing basis which usually comes from research and related activities. Information is needed in vocational education to plan programs based on needs of the people so that valid priorities can be placed on these programs when financial support is requested.

In Kentucky we have established a Research Coordinating Unit under contract with the University of Kentucky. This Unit was established with funds provided under the Vocational Education Act of 1963. It has been confronted with the usual difficulties encountered in establishing any new program. Staff had to be obtained and trained, and a viable organizational structure had to be developed. In cooperation with the State Department of Education, Bureau of Vocational Education, the objectives of the Unit were established; and procedures were developed for the internal operation of the Unit, its working relations with the Bureau of Vocational Education, and its relation with other institutions, agencies, and organizations concerned with vocational education.

The Research Coordinating Unit, under the direction of the Assistant Superintendent for Vocational Education, has coordinated the research activities supported with Federal vocational funds in all institutions of higher education, Bureau of Vocational Education, and local school districts. In addition, it has assisted in developing proposals for institutes and research grants which were consistent with the vocational education needs in the state. Some assistance has been provided by the staff to others making studies and developing research projects.

The Research Coordinating Unit in Kentucky required time to establish itself; but it is now beginning to function as planned in providing the coordination, research, and related studies necessary to furnish the information needed in making management decisions regarding program planning, program development, and program evaluation.

If the States can ever expect to develop a sound program of research and related activities to serve as a continuing arm of program management, Federal financial support must be placed on a more reliable basis than it has been in the past. It is impossible to retain a competent research staff and to conduct a sound research program unless the States can depend on an adequate minimum level of funding to support the staff and continuing projects which are essential for a sound program.

Curriculum Development.—The development of new programs in vocational education, especially in occupational areas for which no programs have been offered in the past, makes it necessary that curricula be developed and instructional materials be prepared for these programs. The vocational instructors must have guidance and help in doing this job. Perhaps one of the most pressing needs throughout the country is the development of a capability for curriculum development. This has been highlighted in the concerns that have been raised regarding the "Career Education" Concept. We need curriculum specialists who can conceptualize the overall curriculums needed and can provide the expertise in helping those responsible for program development get an acceptable job done. Perhaps the answer is a curriculum laboratory for the State that has a competent staff for conducting research, exemplary, and related activities for the benefit of curriculum development throughout the State.

We now have an Instructional Materials Laboratory for Vocational Education that has been established at the University of Kentucky under contract with the Bureau of Vocational Education. It is the responsibility of the Staff of the Instructional Materials Laboratory to help develop curriculum materials needed to support existing and new programs in vocational education at all levels and to review, evaluate, and assemble curriculum materials prepared in other states for use by the vocational teachers in Kentucky.

The Staff of the Instructional Materials Laboratory conducts seminars and conferences for vocational teachers on the preparation and use of curriculum materials. To render this service, staff members are employed who have competencies and experience in the different occupational areas and who are skilled in the preparation of curriculum materials. The services rendered by this staff not only assist teachers in their preparation for teaching, but they also help make instruction in vocational education more relevant to what is taking place in business and industry. They consult with and secure the assistance of business and industry in the preparation of instructional materials.

FACILITIES

It was determined early after the passage of the 1963 Vocational Education Act that if Kentucky were to meet the needs of people of all ages in all areas of the state by providing new programs of vocational education and expanding existing programs, then new facilities would need to be constructed. In most of the comprehensive high schools, vocational agriculture and home economics had been developed as an integral part of the curriculum; but trade and industrial education had been offered only in the large urban areas. To meet the need for trade and industrial education, the state in 1938 established the Mayo State Vocational School in Paintsville for white students and the West Kentucky State Vocational School in Paducah for Negroes. In 1944 another state school was established in Covington for Northern Kentucky. These three schools were operated by the state for students in trade and industrial education. In addition to these schools, ten area vocational schools were operated in ten urban centers by local boards of education. During World War II, these schools were used almost exclusively for the training of workers for industries supplying materials needed to support the war. The three state schools were devoted primarily to this type of work. At the close of World War II and after the passage of the GI Bill of Rights in which returning veterans were eligible for educational benefits, the state schools and the area schools were devoting most of their time and resources to the training of veterans. It was not until 1960 that the resources of these schools began to be directed toward meeting the needs of all the people. Only two of the state schools and none of the area schools had boarding facilities for students. This lack of boarding facilities limited the enrollment in these institutions largely to those who were within commuting distance. The problem of serving the vocational education needs of all the people was recognized by the Kentucky Legislature, when in 1962 legislation was passed to make seven of the area schools state schools. Funds were made available through a bond issue for the construction of new facilities to replace the temporary facilities in which most of these schools were housed. After the seven area schools were brought into the state system, the state developed a plan for area schools which was designed to meet the vocational education needs of all people in the state. It was evident that the 13 area vocational schools, although fairly well located geographically, were not available to all people in the state because of transportation difficulties.

The availability of Federal funds, with the passage of the Vocational Education Act of 1963, to assist in the construction of area vocational facilities, stimulated the State to provide facilities within commuting distance of all the people. A facility plan was developed. This plan when fully implemented will bring vocational education facilities within 25 miles of every high school in the state. It is now, in 1971, well on its way toward completion. This plan included the expansion and improvement of the 13 area vocational schools and the construction of vocational extension centers of these area schools to cover the entire state. At the present time there are, in addition to the 13 area schools, 49 satellite schools or extension centers. (See Figure No. 5.) The State Board of Education has approved the construction of 20 additional centers, a total of 69. The completion of these facilities will bring facilities within commuting distance of most of the people of the state.

Provisions are made for the facility plan to be revised and updated from time to time as the need exists. The construction of these facilities was brought about by the mandate of Federal legislation that "Vocational Education be provided for people of all ages in all areas of the state" and by the provision of Federal funds to assist in this construction.

IDEAS FOR IMPROVING THE FEDERAL LAW AND ADMINISTRATION OF VOCATIONAL EDUCATION AND MANPOWER TRAINING PROGRAMS

In attempting to strengthen programs of vocational education and manpower training programs, it needs to be clearly understood that vocational education must relate to a much broader program of education, that education must relate to a much broader program of human resources development, and that human resources development must be concerned with the development of a wholesome natural environment that will enhance the fulfillment of the democratic ideals and goals which we cherish for all mankind.

1. The development of vocational education in its appropriate setting, as we view the total situation, calls for a clear understanding,

commitment, dedication, and an appropriate structure involving the Federal, State, and local levels of government. This structure should reflect the importance of vocational education in meeting the occupational education needs of the entire population and the manpower requirements of the entire economic system.

2. There needs to be definitely defined roles and responsibilities reflected at all levels of government. They need to be clearly understood and visible in the overall organizational structure.

3. It is doubtful that appropriate attention and commitment will be given to vocational education and manpower training programs at the Federal level until they are placed in a separate "U.S. Department of Education and Manpower Development" with the head of the department designated as a secretary in the President's Cabinet.

4. Within the Department of Education and Manpower Development, there needs to be a "Bureau of Adult, Vocational and Technical Education" with the Head of the Bureau appointed at a grade level equal to that of the person in the Department of Labor and in other departments of the Federal establishment with whom he would be expected to work in carrying out the provisions of the Congressional Legislation.

5. The Bureau of Adult, Vocational, and Technical Education should be responsible for the administration of all adult, vocational, and technical programs established by the Congress. This should include all manpower training programs, postsecondary vocational and technical programs, and adult basic education programs. This means both developmental and remedial training programs. Interphasing and coordination of functions, programs, and supporting services are vital to the success of the entire operation.

6. The Bureau of Adult, Vocational, and Technical Education should be adequately staffed with highly competent professional and technical personnel to carry out the responsibilities assigned to it by the Congressional Acts.

7. There need to be developed and maintained effective lines of communication with other branches of the Federal government. The continuing concern should be coordination, cooperation, and technical assistance in areas of mutual interest and responsibility. Unnecessary duplication of programs, conflicting authority, and wasteful proliferation of programs should be eliminated.

8. Regional offices established throughout the country should be structured to enhance the efforts of the Department of Education and Manpower Development in providing leadership and technical assistance to the States. They need to be adequately staffed with highly competent professional and technical personnel so they will be able to carry out their assigned responsibilities.

9. In relating to the States, the Federal government should recognize the sovereignty of the States. The States should be encouraged and assisted in developing a sound organizational structure that will enhance the leadership position of the State government in working with local units of government to satisfy the vocational education and manpower training needs of the people. When the Federal government bypasses the State government to deal directly with local units of government, it undermines and weakens the leadership role of the

State government. This should not happen. It only fosters distrust and destroys cooperative effort.

10. It needs to be recognized by the Congress that stability and adequacy of financial support are essential if long-range and annual planning are going to be effective in bringing about expanded and improved vocational education and manpower training programs.

11. There is an urgent need for advanced funding of annual appropriations and preferably an approved budget for as much as five years in advance. The Federal Vocational Education Amendments of 1968 indicate that each State and local educational agency that wishes to receive Federal financial support shall prepare and submit a five (5) year projected plan and an annual plan each year in order to qualify. It seems reasonable that if this requirement is sound, then advanced annual funding and an approved budget to cover the period of the long-range plan could be justified. It would provide an element of stability and assurance needed to carry out long-range commitments.

12. The authorizations in the Adult Education Act of 1966, the Vocational Education Amendments of 1968, and the Manpower Development and Training Act of 1962 need to be fully appropriated at the level recommended for the current year and for Fiscal Year 1972. This is essential for effective development and implementation of the programs, services, and activities provided for in these Acts.

13. Monies authorized for research and special projects, exemplary programs, curriculum development, cooperative vocational education, work study, and education professions development need to be appropriated on a stable basis so that States will be able to get appropriately structured and organized to do the kind of job that is needed in these areas. Sustained funding over an extended period of time is required if sound programs are going to be established. Famine one year, feasting the next year, and back to famine the next year will not permit acceptable performance in these areas. These are essential programs for the development of a sound State program of adult, vocational, and technical education.

14. Part B of the Vocational Education Amendments of 1968 needs to be maintained as continuing authorization by the Congress. Serious consideration should be given to placing some of the other provisions of the Act in this category.

15. Part E of the Vocational Education Amendments of 1968 which authorizes support for Vocational Residential Schools should be implemented and adequate funds should be appropriated. This program is urgently needed to expand services for the disadvantaged youth.

SOME OPINIONS ABOUT CAREER EDUCATION

Orientation to the Concept—Career education is an intriguing and challenging concept. It comes nearer to embracing all that I understand and believe about a comprehensive program of education than anything else that I have heard. Dr. James B. Conant, in his writings, described a comprehensive secondary program as one designed to serve the educational needs of all the students that should be enrolled. He said that it should serve three basic needs. *First*, it should provide a sound basic education for the total enrollment; *second*, it should provide a sound program of vocational education for all students who should not be expected to earn a baccalaureate degree; and *third*, it should provide a sound college preparatory program for those interested in enrolling in college, completing the baccalaureate degree, and seeking employment in a professional occupation. Basically, the concept was to adequately design a curriculum that would prepare the entire secondary school enrollment for careers in the "world of work."

This concept was expanded by David Bushnell and Robert Morgan in their concept of "the organic curriculum." The organic curriculum embraces the total school program from kindergarten to the twelfth grade. It advances the notion that the entire curriculum should be developed on the basis of behavioral or career-oriented objectives. The motivation for continuing learning should be those educational experiences that provide opportunities for "hands on" experiences that require reflection, organization, and decision making. All other educational needs should be organically related to and integrated with them.

Pilot or demonstration projects and experimental programs dealing with parts of the curriculum from kindergarten through grade fourteen have been undertaken throughout the country. What we need is a "career education model" that embraces the entire spectrum of education, extending through higher education and adult and continuing education. It should pull together general, academic, vocational, technical, and higher education into one overall comprehensive system that is designed to prepare all of the people in our society for realistic and relevant career objectives based on the aspirations and aptitudes of the people and reasonable expectations for employment in the labor force and a productive role in society.

Psychologists tell us that a man's work—his vocation—is the most important aspect of his life and that nearly all other life experiences revolve around it. This would suggest that in meeting the basic needs of people an essential factor is a job, a vocation, one that matches the aptitudes and interests of the individual, challenges him, and gives him satisfaction. To the degree that this is true, the individual is able to lead a productive and satisfying life.

The primary purpose of education should be to prepare people for the major role that they will be expected to play in society which should be work in the labor force at an appropriate level.

Some Basic Principles to Consider—All that we now know about the learning characteristics of people, motivations for learning, and the learning process should serve as the fundamental basis for developing a viable and effective program of "career education." We repeatedly have been told that individuals are different and their learning styles vary. Their learning abilities and capacity for learning differ. The extent of their learning, motivation for learning, readiness for learning certain things, and rate of learning also differ. If each individual is going to receive maximum benefit from his learning opportunities, he must receive individualized instruction—instruction that is designed to meet his individual needs.

Learning is a growth process, and it is a product. The process starts early in the life of each individual, perhaps in the prenatal period, and continues throughout the productive years of adult life. It is a continuous and building process in which the individual uses his learnings (the product) to acquire additional learnings. One learns with his learnings. In building a sound curriculum, it is important to remember that the learning process is a self-active process whereby one, through his own activities, becomes changed in behavior. The change in behavior represents the acquired learning. One must do his own learning. As one learns, his readiness for learning certain things emerges in the process. Every effort possible should be made by those directing the learning process to see that an appropriate curriculum is provided for each individual so that he can take full advantage of the readiness aspect of learning.

The idea that the learning experience of an individual begins, perhaps, before birth should tell us something about the significance of educating parents to more appropriately rear their children. This is important because of the influence of pre-school development on the learning experiences of their children. There is a great deal of evidence that indicates the significance of pre-school learning experiences in stimulating intellectual growth and developing manipulative skills. The processes involved in the development of a capacity for logical thinking should be started in early childhood, perhaps with the four year olds, because this ability will enhance the child's opportunity to participate more successfully in school.

The learning experiences should involve both perceptual processes and operational processes. They represent different forms of mental activity that lead to the development of logical thinking and the acquisition of important knowledge. During early childhood, the use of concrete materials and processes in providing "hands on experiences" offer great motivation for learning. The use of such materials should provide experiences in problem solving that will prove valuable in school.

Need for a Conceptual Model—In considering all that we know about the educational process and the importance of preparing all educable and trainable people for productive roles in the "world of work," the pervading question that has been confronting educational leaders throughout the country has been how to conceptualize an appropriate educational pattern for career development—what overall educational pattern or structure would best provide adequate opportunities for the career development of all youth and adults. A suggested structure is presented in Figure 1.

The entire curriculum needs to be learner oriented rather than subject centered. It must have built into it a motivational thread which runs through the entire program from early childhood education to the end of adult and continuing education. Perhaps the motivational factor to which all other educational experiences should relate and be relevant is that of career oriented or behavioral objectives. In the early years of schooling, these objectives will be largely personal and in the realm of fantasy. It has been said that "play is a child's work." Perhaps more attention should be given to that fact in developing the curriculum from kindergarten through grade six. Wholesome play, properly planned and supervised as an educational experience, can be an important motivational and learning device.

The practical arts, including industrial arts, general business, general home economics, general agriculture, and other related subject matter areas, offer an opportunity for "hands on experiences" as a motivational thread to which other essential educational experiences should relate. They also provide an enrichment possibility for the curriculum if they are appropriately organized, planned, and taught. They should contribute to the basic education needs of all children. They should provide the opportunity for all children to acquire an understanding of the technology that affects their daily lives in the home and community and in school. More technology is now being used everywhere people go, and each person needs to be intelligent in how to use it. The practical arts should also be the means of orienting the student to the "world of work" and to the more specific career preparation programs that should be available perhaps at the beginning of the eleventh grade.

The basic interests of students in play, laboratory, and shop activities can serve a useful purpose in pulling together the desired learnings of all students into a relevant integrated curriculum at the elementary level. This will be true if these resources are used to foster and sustain student enthusiasm and interest in career education, to stimulate a desire to want to learn so as to attain meaningful career objectives, and to provide the opportunity to relate other essential learnings to this meaningful activity.

As the child progresses in school, he should be allowed to move at his own rate of achievement, and successful completions of activities should be reinforced at every step along the way. What he does should have meaning and purpose, and it should be leading the child to the attainment of clearly defined career objectives. These objectives will gradually change from the world of fantasy to the real world of work in which he will be expected to attain his career objective and find productive employment.

Kindergarten Through Grade Six—The early elementary grades should provide each child a sound basic education and orientation toward a meaningful educational experience. It should include the basic fundamentals upon which the essential learnings in later years must be built. It should assure the proper motivation that is needed to keep all children in school and keep them striving for the educational experiences required to reach meaningful career objectives.

Grades Seven and Eight—As shown in Figure 1, it is suggested that the students should be introduced to the economic system at this level and given an opportunity to understand its significance to the welfare of society and to the well being of the individual and his family. Each student should be led to see the necessity of having people prepare themselves for their proper employment role in the economic system. They should be caused to realize that their parents are now employed in the system, and their paycheck which supports the family is earned from their work in the system. They should be led to understand that they will be expected to find full-time employment in the economic system when their formal education is completed and perhaps seasonal employment and possibly cooperative work experience while a student in school. They should come to realize that it is important for them to make wise career decisions as a part of their educational experience which should lead to a career choice as soon as possible so they can receive adequate preparation for it.

Grades Nine and Ten—It is suggested that all students in the ninth and tenth grades should become thoroughly oriented to the occupational structure of the economic system and be given ample opportunity to explore the broad range of occupational clusters before they make a definite decision as to which cluster interests them most—the one in which they want to make definite preparation for future employment. Before they are allowed to make definite decisions which will likely set the whole course of their lives, they should be given the opportunity to engage in a variety of work experiences in the different occupational clusters so as to establish a sound basis for making career choices. These experiences may be provided in several ways—in shop work, office practice, laboratory exercises, cooperative work arrangements with businesses and industries, and other work experiences made available by the school. These experiences should include visits to business, industry, and other places of employment, as well as visits to the school by employer representatives so as to provide the basic information needed about the various occupational clusters which the students could select in light of their career aspirations and aptitudes and reasonable opportunities for employment. This background of work orientation and exploration should enable a majority of the students to make realistic career choices and enable them to develop definite plans for attaining their career objectives.

Grades Eleven and Twelve—Education should not be considered terminal for any student. The education of all high school students should be directed toward continuing education beyond the years of formal education whether in high school, postsecondary, or higher education. It is suggested that at the beginning of the eleventh grade, students should have acquired, through the educational process from early childhood through the tenth grade, sufficient background about the "world of work" to choose from at least three alternative career preparation programs, all of which are flexibly interrelated to allow the students to crossover from one approach to another if their aspirations change. (1) Some students will decide that they want to find employment at the completion of their high school program. They will need additional vocational training, on a part-time basis, in adult and continuing education programs. (2) Some will want to prepare for careers that require additional formal vocational or technical preparation beyond high school but less than the baccalaureate degree. They will need to continue their preparation in a postsecondary vocational or technical school or community college. (3) Some will decide that they want to go to college and prepare for professional careers which require completion of the baccalaureate degree.

The last two years of high school should provide for the preparation needed by all students to move to their next step which should be dictated by their career choice. In the entire curriculum, academic and vocational education should be integrated by employing behaviorial objectives and career interests as the principal vehicle for the inculcation of the basic learning skills. In this way learning should become more meaningful to many students who otherwise have difficulty in seeing the value of school work. Increased attention must be placed on educational programs that will enable youth and adults to achieve their optimum development and help in the articulation between the school and occupational employment. Continued interest in meaningful educational experiences provided by the school which is motivated by career oriented objectives, deserves serious consideration in curriculum development and in the area of guidance services.

If such a curriculum pattern were considered to be a feasible approach toward the reorientation and reorganization of educational systems of this country, then a significant problem that needs attention is that of establishing a "career education model" that can be adequately tested and developed in an entire school system. The findings should be carefully analyzed and widely disseminated to leaders in government and education throughout the country. This will require strong motivation, dynamic leadership, and adequate financial support from the Federal, State, and local levels if positive courses of action can be expected.

LOUISIANA

State Director—Thomas S. Derveloy

STATEMENT BY THOMAS S. DERVELOY, ASSISTANT SUPERINTENDENT FOR VOCATIONAL EDUCATION, LOUISIANA STATE DEPARTMENT OF EDUCATION

Mr. Chairman and members of the General Subcommittee on Education, vocational education in this nation emerged as a response to the need for a trained labor force. Federal aid which began with the passage by Congress of the Smith-Hughes Vocational Act in 1917 provided financial assistance for vocational agriculture, home economics, and trade and industrial education. Subsequent vocational education legislation strengthened the position of the importance for adequately meeting manpower training needs and occupational education. A major development in Federal vocational education legislation was the enactment of the Vocational Education Act of 1963. Not only did this Act provide for increased Federal funding for vocational education, but it gave new opportunities and new directions for programs, services, and activities. Five years later, Congress enacted the Vocational Education Amendments of 1968 which provided sweeping changes and broad new directions in the national vocational education program. The definition of vocational education was expanded and new thrusts were added which changed drastically the Vocational Education Act of 1963.

Paralleling the development of vocational education on the national level has been the important role of local and state programs. There has been a noticeable impact of the Vocational Education Amendments of 1968 on the vocational education programs, services, and activities in the State of Louisiana. The declaration of purpose of the Vocational Education Amendments of 1968 has become meaningful in planning the State's programs, services, and activities. Available Federal assistance is utilized in maintaining, extending, and improving programs of vocational education and in developing new programs of vocational education so that persons of all ages in all communities of the State will have ready access to vocational training or re-training which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment and which is suited to their needs, interests, and ability to benefit from such training. Programs, services, and activities are offered in all recognized vocational areas—Agriculture, Distribution, Health, Home Economics, Office Occupations, Technical, and Trades and Industry. Ancillary services and activities are provided which assure quality in vocational education programs and include teacher training, curriculum development, state administration and supervision, and vocational guidance and counseling. Local educational agencies have been required to submit local plans which insure that adequate preparation and planning have been carried out in order to meet the declaration of purpose of the

Vocational Education Amendments of 1968. It is felt that remarkable and substantial progress has been accomplished in meeting training and occupational preparation needs of the State. These accomplishments are a major step toward solving the grave unemployment problems facing our society today. Thus, vocational education in Louisiana is and shall be specifically directed toward preparing persons at all levels and from all population groups for gainful employment. Instructional purposes as prescribed by the Act—secondary, post-secondary, and adult, with additional emphasis given to persons who are disadvantaged and handicapped—are being carried out. Additional concern is also being given to those persons residing in economically depressed areas of the State, areas registering high youth unemployment and school dropouts.

Fiscal Year 1970 was the first year in which vocational education programs and activities in the State operated under the guidelines of the Vocational Education Amendments of 1968. Program developments and accomplishments in this year were the result of carrying out prescribed objectives of long range and annual planning which were incorporated into the State Plan. Because of the implementation of provisions of the Vocational Education Amendments of 1968, there were noticeable redirection and change in the basic vocational education programs. Existing programs and activities were broadened with emphasis placed on providing opportunities for disadvantaged and handicapped persons. In addition, the new thrusts of the present vocational education legislation necessitated the development of entirely new programs and procedures which differed greatly from those in the past. The period of transition from operating under the provisions of the Vocational Education Act of 1963 to the Vocational Education Amendments of 1968 presented some difficulties.

PROGRESS REPORT OF THE IMPLEMENTATION OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 IN SELECTED AREAS AND CATEGORIES

Post-Secondary

Post-secondary programs in the State were conducted in the State-supported vocational-technical schools. Such programs met the criteria of the State Plan in providing vocational training for persons who had either completed or left high school and were available for full-time study in preparation for entering the labor market.

It may be noted in the statistical data included in this report that a slight decrease in post-secondary enrollment of 3.0% was registered in 1970. All factors reviewed indicated that this situation resulted from program curtailment due to the reduction of State funds in the 1970 operating budgets of State-supported vocational-technical schools. The State-supported vocational-technical schools located in various geographic areas of the State served the needs of both urban and rural populations. It is felt that all persons who had the desire or interest had ready access to post-secondary training. However, public free transportation is not available to all the post-secondary schools and this factor conceivably limited the number who might have attended.

The post-secondary objectives as outlined in the State Plan have generally been met. However, increased vocational guidance services and the initiation of new programs have not been implemented due to lack of funds, facilities, and personnel.

All of the indicators reviewed point to an increased emphasis in post-secondary training. The image of post-secondary training in the State has improved during the past several years and both youth and adults are now turning their attention to post-secondary training for occupation preparation. More youth who are not ready to enter the world of work seek additional training in the State-supported vocational-technical schools in the State.

With the present awareness and interest in post-secondary training—on the part of students, educators, parents, business and industry—it is apparent that additional programs shall be required.

Labor demand projections by occupational areas were partially met by the 2,762 post-secondary completions. It is apparent, however, that additional programs were needed to fully meet labor market requirements and job opportunities in the State. Training programs conducted, however, were within labor market shortage occupations.

There were 571 post-secondary teachers in the State. There was correlation between the number of teachers in vocational program areas with the enrollment figures registered in the respective vocational programs. Enrolled in remedial and/or special needs classes were 1,112 students. These classes were conducted to take care of students with individual deficiencies in academic and related areas.

Due to the importance of post-secondary training in the State it is felt that Federal funds for post-secondary education should not only be continued but increased.

DISADVANTAGED AND HANDICAPPED

State vocational education efforts to serve disadvantaged and handicapped persons have been made through regular vocational education programs which have been modified and special programs designed to serve these persons. Vocational education programs and activities were broadened during the Fiscal Year 1970 to give more emphasis to providing training opportunities for disadvantaged and handicapped persons.

Cooperative agreements were made between the Division of Vocational Education, the Division of Vocational Rehabilitation, and Special Education Section for the development of programs and services for handicapped persons. One State-supported special school and eleven city-parish school systems served handicapped students in several vocational education areas.

Disadvantaged

Disadvantaged persons were served in 123 modified regular programs and in a number of special programs during the first year under the Vocational Education Amendments of 1968. Included among the disadvantaged were: potential high school dropouts, disinterested students, culturally deprived and academically deficient persons. Disadvantaged enrollment as shown in the statistical data in this report indicates that 48,403 disadvantaged persons received vocational training in 1970. It should be noted that the majority of disadvantaged students were enrolled in regular or modified classes and were successful in completing course requirements. Objectives of keeping disadvantaged students in "mainstream" programs was stressed which was in keeping with our concept of maintaining disadvantaged persons in regular programs where possible. There were some persons whose disadvantaged conditions required them to be placed in special programs.

Handicapped

Vocational education programs for handicapped students were conducted in both special classes and in modified regular classes. There were special education programs for the educational and mentally retarded students and students with learning disabilities. Included in these programs were special and remedial instruction through special education equipment and devices. Prevocational orientation programs were also provided.

The 1970 year was one of a developmental period and does not reflect the attainment of goals as experienced by established programs. There were 615 handicapped enrolled in four occupational areas under Part B of the Vocational Education Amendment of 1968.

RESEARCH

Under the first year of the Vocational Education Amendments of 1968, the State's allotment of research funds under Part C was extremely small. Actually, the allotment was insufficient to support the activities of the Research Coordinating Council and there were no Federal funds available for research grants and contracts. Consequently, the various research projects which had been incorporated into the State Plan could not be accomplished.

The Research Coordinating Unit has operated since August 1, 1966, in the Division of Vocational Education, Louisiana State Department of Education. The unit was initially funded by a three-year grant under the Vocational Education Act of 1963. The Research Coordinating Unit has been able to carry out several projects by the utilization of its own staff personnel. However, research grants and contracts, which would have been most helpful in experimental and developmental programs and dissemination activities, did not materialize during the first year under the Vocational Education Amendments of 1968. Funds allotted to the State for Fiscal Year 1971 shall be utilized for the support of the Research Coordinating Unit, for research grants and contracts, and for demonstration and experimental projects designed to:

(1) Identify new careers and occupational areas which will qualify as vocational programs.

(2) Improve employability of vocationally-trained persons by utilizing all available segments of society.

(3) Bring research findings and improved practices into actual operation in local educational agencies.

Activities of the Research Coordinating Unit included a comprehensive study on space and equipment utilization in the vocational-technical schools in the State. The study involved enrollment, school capacity, space utilization, additional space needed, and instructional and administrative facilities required. Also, refinements in manpower needs and job opportunities have been completed in conjunction with the Louisiana Division of Employment Security. Labor market data for the current year with projections for five years were detailed by selected specific occupation for the first time in the 1972 State Plan.

As exemplary programs sponsored under the Vocational Education Amendments of 1968 require research and development work, considerable effort has been involved in this area. Although exemplary projects do not require original research, the review and study of prior research projects and materials has been a major activity. Materials made available to the Research Coordinating Unit in Louisiana through regional vocational education research centers which receive Federal assistance have been utilized in maintaining a research library and in the research dissemination program.

Although research funds may be more vulnerable to budget reductions than other programs, such research activities have the potential for achieving significant advances in vocational education. Vocational education has not had the many opportunities as have other educational programs for a long-term program of research. Continued Federal support for research programs in vocational education shall be justified when results are reviewed and evaluated.

TARGET AREAS

In accordance with the philosophy of the Vocational Education Amendments of 1968, priority was given to certain geographic areas of Louisiana for funding vocational education programs. In the process of establishing these priorities, 36 areas in 1970 were designated as economically depressed, 51 had high general unemployment, and 7 were labeled as areas with high population density.

The 36 areas designated as economically depressed were given an additional rating factor in application for funding. Notwithstanding the fact that target areas with high rates of youth unemployment were restricted primarily to new programs, provisions were made, where possible, to offer and expand programs in these areas.

Forty-nine of the 51 city-parish school systems located in areas designated as high youth unemployment or excessive dropouts were approved for vocational education funds.

INTRA-STATE PROGRAM FUNDING

In accordance with Section 123(a)(6)(A) through (D) of the Vocational Education Amendments of 1968, policies and procedures to be followed by the State in the distribution of funds to local educational agencies were incorporated in Part I, Section 3.26 of the State Plan. Guidelines further stated that "funds made available ... will not be allocated to local educational agencies in a manner such as the matching of local expenditures at a percentage ratio uniform throughout the State ...". In following such procedures as set forth in Section 3.26 of the State Plan, each local application must be reviewed and rated to arrive at the allowable funding levels. This procedure has been time-consuming and local educational agencies have not been fully aware of the importance of this procedure although detailed State

Plan materials are made available. The results of the distribution of funds by the formula in the State provide that no uniform ratio exists. However, some degree of inflexibility appears to be inherent in the utilization of the formula. Also, it has been noted that population characteristics, location of school districts in certain geographical areas of the State, and manpower training needs do not always affect the formula in direct proportion to actual requirements and needs. Since the State is on an equalization formula or Minimum Foundation Program for the allocation of State funds for teachers' salaries and related benefits, the comparable smaller amounts of Federal funds which are distributed by the formula do not necessarily parallel overall needs. It appears from experiences gained under the Vocational Education Amendments of 1968 that the formula approach is sound; however, additional degrees of flexibility would enhance such method of distribution of funds to better serve the needs of local educational agencies.

STATE ADVISORY COUNCIL

The Advisory Council on Vocational Technical Education through its Annual Report and Evaluation Report has made recommendations concerning vocational education programs and legislative changes designed to improve the quality and quantity of vocational education in Louisiana. The Evaluation Report of the Council resulted in a comprehensive review of vocational education in Louisiana conducted under the provisions of the various Parts of the Vocational Education Amendments of 1968 which were funded. Through the review and evaluation of vocational education programs, many accomplishments as well as recommendations for considerations and implementation by the State Board of Education have been identified.

Public hearings and meetings were held and conducted by the Council to provide opportunities for the lay public as well as educators to express their views on the State Plan for Vocational Education as well as vocational education programs and to allow the people to share their concern with members of the Council. These meetings were held in various parts of the State with attendance at these meetings ranging from 50 to 150.

The Council members expressed concern for and made recommendations for:

(1) Upgrading the image of vocational education through the expansion of facilities, students, services, and staff improvement.

(2) Increasing effective guidance and counseling services in all vocational education programs.

(3) Reviewing and updating vocational education curriculums to meet occupational requirements.

(4) Utilizing the best possible data on manpower needs and job opportunities in the State which are comprehensive and reliable.

STATISTICAL DATA

Statistical data are provided which include enrollments in vocational education programs by level, enrollments by program, and number of teachers of vocational education by level and program. Data cover three and five year periods through Fiscal Year 1970. Comparable data for 1971 are now in the process of being tabulated and are not available for reporting purposes. (See pp. 477–8.)

General trends as well as detailed characteristics can be determined by a review of these data.

SUGGESTIONS FOR IMPROVING FEDERAL LAW AND ADMINISTRATION OF VOCATIONAL EDUCATION PROGRAMS

1. Strong vocational education leadership at the Federal level is important in achieving total objectives in providing quality vocational education for the youth and adults of this nation. Priorities need be given to an adequate staff of vocational educators who possess the necessary training and experience in vocational education in the areas of their major responsibilities.

Additional staffing in regional offices must be achieved in order to serve adequately and effectively the needs of the states.

2. Since vocational education planning is based upon funding levels, it is recommended that Federal legislation be so structured that advanced funding be made available to the State prior to the beginning of the fiscal year. Whereby the State Plan now encompasses annual and long-range planning without sufficient funding information, such planning efforts are often ineffective.

3. Full funding as authorized by the Vocational Education Amendments of 1968 has never been appropriated. Appropriations should be compatible to authorizations, otherwise false hopes are built upon funding levels which never materialize. Further, Part E which provides for residential vocational education facilities has never been funded.

4. Part F of the Education Professions Development Act (Title II, P.L. 90–576) should be extended with increased authorizations. Vocational educaton personnel are now needed in greater numbers to serve expanded and new programs in vocational education. Also, in-service programs for regular vocational teachers and for teachers of special population groups are urgently needed.

5. The State Plan provisions presently require countless number of hours in time and effort for preparation with some provisions of the Plan irrelevant to the State's basic objectives and programs. It is felt that the time and effort spent in the preparation of the State Plan in many cases is not in direct proportion to the value received from the State Plan itself.

6. Although state-wide matching is now permissible in the basic grant programs and is a decided improvement over the matching by purpose as required by the Vocational Education Act of 1963, consideration should be given to reducing State and local matching requirements for parts of the Vocational Education Amendments of 1968. This is not to suggest that parts of the Act which do not require State or local matching funds be changed.

7. Increased emphasis under the Vocational Education Amendments of 1968 has been given to providing programs for the disadvantaged in the 15 percent set-aside in Part B and in Part 102(b). States in the past have always provided quality vocational education programs for all persons including disadvantaged and deprived persons who are in need of and desirous of vocational training. Disadvantaged students

should be and can be in "mainstream" education programs. The percentage set-asides do not necessarily correlate to the needs of the individual state nor should emphasis be given to a special population group by a percentage set-aside requirement. Rather, the total program for meeting all needs should be stressed. There also seems to be a lessening of emphasis in present legislation for nondisadvantaged students and exceptional students who require equal consideration for training priorities. Thus, the discretion for the use of funds in providing training to meet the needs of all population groups in the state should rest with the State.

8. The level of funding authorized for parts of the Vocational Education Amendments of 1968 should be compatible with the needs of the specific programs as determined by the State. This can best be accomplished by Federal appropriations at the present or increased funding level in the form of a basic grant to the states with each State determining the amount of funding for parts of the Act based upon the State's priority needs.

ENROLLMENTS IN VOCATIONAL EDUCATION PROGRAMS BY LEVEL, STATE OF LOUISIANA, 1966–70

Level	1970	1969	1968	1967	1966
Enrollees, total	165,481	167,626	154,823	121,915	110,117
Secondary	123,141	117,073	102,025	72,980	68,872
Postsecondary	15,801	16,282	15,306	14,088	12,800
Adult	26,539	33,196	36,313	34,135	27,637
Persons with special needs		1,075	1,179	712	808
		[1] 2,044	[1] 1,184	[1] 1,295	
Remedial	[2] (1,112)				
Disadvantaged	[2] (48,403)				
Handicapped	[2] (615)				
Group guidance	[2] (2,625)				
Percentage change from preceding year, total	−1.3	8.3	27.0	10.7	6.1
Secondary	5.2	14.7	39.8	6.	8.8
Postsecondary	−3.0	6.4	8.6	10.1	38.3
Adult	−2.0	−8.6	6.4	23.5	−11.4
Persons with special needs					

[1] Enrollees in regular vocational education classes.
[2] Figures in parentheses were reported on secondary, postsecondary, and adult levels.

ENROLLMENTS IN VOCATIONAL EDUCATION BY PROGRAM, STATE OF LOUISIANA, 1967–70

Program	1969–70	Percent of total	1968–69	Percent of total	1967–68	Percent of total
Total	165,481	100.0	167,626	100.0	154,823	100.0
Agriculture	17,442	10.5	18,423	11.0	17,407	11.2
Production	11,936	7.2	16,353	9.8	16,564	10.7
Off farm	5,506	3.3	2,070	1.2	843	.5
Distribution	8,021	4.8	9,204	5.5	8,032	5.2
Health	2,635	1.6	2,958	1.8	2,925	1.9
Home economics	50,786	30.7	45,145	26.9	43,693	28.2
Useful	49,575	30.0	43,952	26.2	41,692	26.9
Gainful	1,211	.7	1,193	.7	2,001	1.3
Office	62,815	38.0	66,223	39.5	55,731	36.0
Technical	2,929	1.8	3,870	2.3	3,181	2.1
Trades/industry	20,853	12.6	21,803	13.0	23,854	15.4

TEACHERS OF VOCATIONAL EDUCATION BY LEVEL AND PROGRAM—STATE OF LOUISIANA, 1967–70

Type	1969–70	1968–69	1967–68
Total	[1] 2,812	[2] 2,744	[1] 2,586
Level:			
Secondary	1,915	1,838	1,621
Post-secondary	571	493	522
Adult	[2] 700	[illegible]89	[2] 815
Special needs		37	33
Program:			
Agriculture	284	261	237
Distribution	162	192	133
Health	119	127	128
Home economics	672	569	561
Office	850	1,067	953
Technical	122	111	117
Trades/industry	447	417	457
Guidance counselors	105		
Remedial	19		
Handicapped	4		
Disadvantaged	28		

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[1] Unduplicated count,

[2] Includes regular secondary and post-secondary day school teachers, as follows: 1969–70, 374; 1968–69, 554; 1967–68. 404.

MAINE

State Director—Elwood A. Padham

STATEMENT BY ELWOOD A. PADHAM, ASSISTANT COMMISSIONER, BUREAU OF VOCATIONAL AND ADULT EDUCATION, STATE OF MAINE

Mr. Chairman and members of the Education Subcommittee, I am Elwood Padham, assistant commissioner of the Bureau of Vocational and Adult Education, Maine State Department of Education. The State of Maine is most appreciative of this opportunity to testify on Public Law 90–576, the Vocational Education Amendments of 1968.

Maine is a rural state as large as the other five New England states combined. It has a population density of 29 persons per square mile, with approximately 1,000,000 persons living in an area of 33,000 square miles.

Mr. Chairman, prior to passage of the Vocational Education Act of 1963, less than one-third of the public high schools and less than one-fourth of the private high schools offered *any* type of vocational preparation for the youth of Maine:

Public high schools (total)	177
Public high schools having any vocational education	57
Private high schools (total)	60
Private high schools having any vocational education	13

In Maine in 1962, only one high school offered a program of distributive education and only 13 high schools offered programs in trade and industrial education.

High schools having vocational home economics	53
High schools having vocational agriculture	28
High schools having trade & industrial education	13
High schools having distributive education	1

In Maine in 1962, only 14 students were taking distributive education. In contrast to this, almost 4,000 students were enrolled in vocational home economics:

Enrollment in vocational home economics	3,935
Enrollment in vocational agriculture	1,101
Enrollment in trade & industrial education	517
Enrollment in distributive education	14

In Maine in 1962, no adults were enrolled in adult home economics. In contrast, 1,116 adults were enrolled in adult fire service training.

Enrollment in adult fire service training	1,116
Enrollment in adult trade & industrial education	703
Enrollment in adult vocational agriculture	240
Enrollment in adult distributive education	55
Enrollment in adult vocational home economics	0

In Maine in 1962, one postsecondary vocational-technical institute, founded in 1946, was in operation in modest facilities. More adequate facilities were made available when Fort Preble at South Portland was acquired, and the institute moved to the new site in 1952. In 1962, 360 students were enrolled in eight programs such as automotive, building construction, etc.

In 1962, Maine's programs of vocational education were funded from the following sources:

State funds (approximate)	$261, 772
Local funds (approximate)	272, 135
Federal funds (approximate)	288, 125
Total	822, 032

It was evident in 1962, therefore, that on the basis of comparisons with other states Maine was far behind in promoting and supporting vocational education for the high school, post high school and adult classes.

After passage of Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 the federal government poured millions of dollars into the arteries of the vocational education system. Maine hopes that this massive infusion is only the beginning.

The Act and the Amendments motivated Maine to increase its own contributions so that the total expenditure for vocational education has expanded greatly.

For the purposes of this presentation the secondary schools were divided into those operating *regional technical vocational centers* and those *offering one or more vocational courses.*

The types of vocationally approved courses offered in 149 Maine secondary schools, public and private, during the 1969–70 school year, not including the regional technical and vocational centers:

Courses and number of schools offering

Agriculture	10
Business and office	96
Distribution and marketing	4
Home economics	60
Trade and industrial	7
Work experience (cooperative)	12

NUMBER OF STUDENTS ENROLLED IN VOCATIONALLY APPROVED COURSES OFFERED IN 149 MAINE SECONDARY SCHOOLS, PUBLIC AND PRIVATE, 1969–70 SCHOOL YEAR[1]

	Enrollment		
	Boys	Girls	Total
Agriculture	422		422
Business and office	2, 211	7, 156	9, 367
Distribution and marketing	97	113	210
Home economics	80	2, 096	2, 176
Trades and industry	814	34	848
Work experience (cooperative)	52	44	96
Total	3, 676	9, 443	13, 119

[1] Not including the regional technical vocational centers.

The facilities for these programs were provided from State and local sources.

Funding of these programs were shared as follows:

State	$345, 000
Local	4, 074, 000
Federal	317, 000
Total	4, 736, 000

It should be mentioned that 109 senior high schools have industrial arts programs with an enrollment of 13,216 students. The instructional costs and construction of facilities are supported by State and local funds.

Thirteen regional technical and vocational centers were in operation during the school year 1970–71, two of them for the first time.

The full-time day enrollment in these regional technical and vocational centers is 6,454. Twenty-two different types of vocational courses are offered in these 13 regional centers which serve 82 administrative units.

To operate the 13 centers for the school year cost:

State	$1,900,000
Local	750,000
Federal	325,000
Total	2,975,000

The State pays ⅔ of the operating costs and the local community pays the remaining ⅓ of the cost. The Federal funds are allotted on a formula basis.

All construction costs are shared by State and local systems on a 75–25 basis. The cost of construction has ranged from $850,000 to $3,500,000. No federal funds were used in these construction projects.

All construction costs are shared by State and local systems on a cation courses, with an estimated enrollment of 2,000 for school year 1970–71. The State pays 90% and the local community 10% of the operating costs of all adult vocational education programs.

Under State law the State Board of Education is authorized to establish, maintain and operate *State vocational-technical institutes* and *schools of practical nursing*.

Six vocational-technical institutes were in operation during the school year 1970–71, one of them for the first time. This was a combined program, involving one of the regional technical vocational centers.

It costs the State $3,500,000 annually to operate these six institutes. The Federal government contributes $275,000 to $300,000.

Approximately 1,800 students are enrolled in these vocational-technical institutes. Construction has cost the State $8,000,000, with another $1,000,000 of federal funds used over a three-year period.

Due to the 40% set asides of the Vocational Education Amendments of 1968, it is impossible for the State of Maine to allocate funds for construction. The Federal funds we receive are allotted and used for other purposes.

The vocational-technical institutes served approximately 5,000 adults this past year in retraining and upgrading programs; this was paid for with State and federal funds on a 50–50 basis.

For the first time in the history of vocational education in Maine, the Bureau of Vocational Education has developed forty programs for disadvantaged boys and girls in forty communities. Over 800 individuals are being served by these programs, which are funded from Part B 15% set asides and 102(b), Disadvantaged.

Eight programs for the mentally handicapped, among 250 individuals, were started in fiscal 1970. Each program provides for pre-vocational training and has provisions for work experience in the curriculum. The Part B 10% set asides funded these programs for handicapped persons.

Vocational education in Maine today is still experiencing its greatest period of growth. Since the enactment of the Vocational Education Act of 1963 and the 1968 Amendments, vocational education has shown evidence of becoming an increasingly effective and dynamic force in the State.

I now concern myself with emphasizing the need for extending authorizations for Public Law 90-576. Increased funding is needed under Grants to States (Sec. 102(a)). Maine needs more funds to expand postsecondary vocational education. Four students apply for every available slot in our vocational-technical institutes. We must offer more programs if we are to serve the needs of young adults in Maine.

Additional Federal funds are needed for construction of six new regional technical vocational centers to complete the long range plans for secondary school vocational education.

We also urge extension of the authorizations found in Section 102 (b), Disadvantaged, Part D (Exemplary Programs), Part E (Residential Facilities), Part F (Consumer and Homemaking Education), Part G (Cooperative Programs) and Part H (Work Study).

We support extension and authorized funding of the present law and suggest increased funding for Grants to States (Sec. 102(a)). All sections of the Act are currently funded at less than the levels authorized.

In order to make continued progress in the development of vocational education in the State of Maine and to move even more forcefully in the direction given by P.L. 90-576 we should have continued authorization for those programs such as Section 102(b), Disadvantaged, Part C (Research), Part D (Exemplary Programs), Part F (Consumer and Homemaking Education), Part G (Cooperative Programs) and Part H (Work Study), just now getting under way.

We especially urge this subcommittee to continue supporting Section 102(b), Disadvantaged, Part F, Consumer and Homemaking Education, and Part G, Cooperative Education, because in our sparsely populated State we can reach out with these programs to individuals who need education provided by these sections of the Act.

We also urge this subcommittee to continue support for residential vocational education facilities (Part E). This section of the Act has never been funded. Maine has residential vocational education facilities, but it needs additional facilities to serve students who live great distances from our schools; and who want and have the right to benefit from this type of education. The Federal government has suggested the construction of residential facilities for practically every college campus throughout the Nation. It seems only reasonable to support this responsibility at a lower level.

In conclusion, may I say that Maine has made great efforts to fund vocational education adequately at the State and local level since the passage of the Vocational Education Act of 1963. Maine's tax burden is heavy, and we need additional funds from the Federal government to help vocational education continue to grow. We have many more individuals of ages 14 to 65 who need these services—please help us.

May I again express appreciation for this opportunity to present my views. I hope you will accept my major recommendations and thank you very much for the opportunity to appear before this committee.

MARYLAND

STATE DIRECTOR—JAMES L. REID

TESTIMONY OF JAMES L. REID, ASSISTANT STATE SUPERINTENDENT IN VOCATIONAL AND TECHNICAL EDUCATION, MARYLAND STATE DEPARTMENT OF EDUCATION

INTRODUCTION

I am James L. Reid, Assistant State Superintendent in Vocational and Technical Education, Maryland State Department of Education.

A copy of my testimony is being submitted for your consideration, but I shall not read the entire report. I would like to make the following comments:

As a result of the passage of Public Law 88–210, the General Assembly of Maryland has appropriated, on a matching basis, thirty million dollars earmarked for construction of area vocational school facilities. Federal annual appropriations along with the State funds gave an initial thrust to vocational education in this State that was unprecedented in its history.

The Vocational Education Act, Amendments of 1968, (P.L. 90–576) offered additional promise toward the continued expansion and strengthening of vocational education programs, especially in the areas of cooperative vocational education, consumer education and homemaking, post-secondary education, and vocational programs for disadvantaged and handicapped. Considerable progress has been made in Maryland toward meeting the objectives of the Vocational Amendments of 1968 even though we have only been operating less than two years under the Amendments and less than one year of effective funding.

The primary emphasis provided by the new directives as outlined in the 1968 Amendments for FY 1970 was to stimulate the development of new vocational programs, services, and activities to serve a broader spectrum of the population.

These have been the major accomplishments:

1. The development and implementation of a State and local system of long-range (five years) and annual planning for vocational-technical education.

2. The initiation of a management information system to provide relevant data and information for planning and decisionmaking.

3. The expansion of State and local vocational personnel to effectively plan, develop, and implement vocational-technical programs to meet the vocational needs of all persons.

4. The reorganization of State and local staffs to provide leadership and direction toward achieving the goals outlined in the Vocational Amendments of 1968.

5. Vocational education programs to serve the needs of disadvantaged persons have quadrupled in number. New and innovative programs have been developed which provide effective channels for assisting disadvantaged persons in becoming employable.

6. Approximately three-fourths of the local educational agencies in Maryland have developed vocational education programs for handicapped persons. Vocational evaluation has been given programming emphasis in order to help handicapped persons assess their employment potential and then select an area of employment training where they are most likely to find success.

7. Post-secondary education has experienced a rapid increase in the number of community college career-oriented programs and students. A yearly minimum of 15 per cent of Part B funds and funds from special categories on a project basis have assisted community colleges in the enlargement of expensive vocational-technical programs as a major part of their offerings.

8. Inservice educational programs for teachers and vocational personnel were implemented in an effort to assist the local educational agencies in developing new vocational programs for persons from all segments of the population. There was particular emphasis in the areas of consumer and homemaking, career development, vocational guidance, cooperative vocational education, programs for the handicapped and disadvantaged, and program planning.

These have been the major problems:

1. The Amendments became effective July 1, 1969 but funds were not available to local units until April of 1970, ten months after the start of the effective fiscal year.

2. The programs initiated in late FY 1970 are just beginning to function. Assessment of programs has not been accomplished because they have been in operation for a short period.

3. An immediate effect of the 1968 Amendments was to force the curtailment of regular vocational programs due to a shortage of federal funds and because of the mandatory basic grant "set asides" of 40 per cent. Evidence showed the need for actually doubling regular program capacity in order to meet the increasing educational needs of the population.

4. There was a necessity to divert Federal funds from the construction of vocational facilities in order to meet the funding needs for programs initiated under the Vocational Act of 1963.

5. The new mandated method of allocating funds to local units has created financial hardships for many local school systems by reducing the amount of federal funds available.

Local systems that began providing facilities and developing programs under the Vocational Act of 1963 are now penalized. Full funding of the Amendments of 1968 would have provided continued support for programs started under the Vocational Education Act of 1963 at the initial level. The combination of the formula for allocation of funds and the amount of funds set aside for special programming has had the effect of stifling local school systems in the expansion of regular vocational education programs that are designed to enable an individual to prepare himself to effectively earn a living and become a responsible and productive citizen.

I appreciate the opportunity to indicate to this committee the importance of the Amendments of 1968 and to point out what I consider to be the strengths and weaknesses of this legislation.

The report which follows contains summaries of the areas that were major provisions of the 1968 Amendments as implemented in the State of Maryland.

ADMINISTRATION

1. Planning

a. One of the most significant effects of the 1968 Amendments is that both the State and local educational agencies have developed and implemented long-range and annual planning procedures for vocational education.

b. Personnel have been added to the State staff to provide leadership to the local units in their planning efforts and to develop a planning system for the State.

2. Expansion of State and local staff

Additional State staff personnel have been added to provide leadership and to develop programs in the areas of special needs (disadvantaged and handicapped), post-secondary, career development, adult education (particularly in the area of industrial training and apprenticeship programs), and consumer education and homemaking.

3. Teacher Education

There has been no expansion of teacher education programs in institutions of higher education. There has been a considerable increase in inservice teacher education programs.

Special workshops were conducted in the following fields:

Consumer and Homemaking.
Disadvantaged and Handicapped.
Career Development.
Combination of interdisciplinary programs.

4. Maryland State Advisory Council on Vocational and Technical Education

The number of members has doubled as a direct result of the Act. An executive director has been appointed. The Council has been involved in the development of the State Plan.

VOCATIONAL EDUCATION PROGRAMS FOR DISADVANTAGED PERSONS

Program Development

Twenty-one of the twenty-four local educational agencies in Maryland which are providing vocational education for disadvantaged persons are operating more than ninety programs. Prior to the Vocational Education Amendments of 1968, only five local educational agencies had special needs programs for disadvantaged persons.

These programs are focusing on modified vocational curricula, related, and/or remedial curricula designed to meet the unique individual needs of disadvantaged persons. In the development of programs, attention has been given to the deficiencies in basic competencies as well as in employment training. The major thrust is upon enabling disadvantaged persons to make a satisfactory transition from school to the world of work.

The nearly 13,000 persons now participating in special vocational education programs represent only a small percentage of the number reported in the State as needing special assistance. In comparison to the needs, the job has just begun but the progress has been positive during the 18 months that concerted emphasis has been given to programs for disadvantaged persons. Local educational agencies are becoming more concerned about students leaving school without employable skills. More effective programming for these persons is being planned, and attempts are being made to support such programs through local funds.

Two State agencies—The Department of Juvenile Services and The Department of Corrections—have begun to expand and improve vocational education programs as a result of assistance provided by the Vocational Education Amendments of 1968. In the juvenile institutions five programs have received funding, and a vocational education coordinator is being recruited to give leadership to the further development of vocational education programs. One program was funded with the Department of Corrections to redirect the educational program in a vocational center from the more traditional methods to individualized instructional methods of teaching. This new method should increase the effectiveness in institutional settings where there is a continual flow of students.

Vocational education plays an important role in the rehabilitation of persons in the juvenile and correctional institutions. Many more programs are needed to insure the employability of institutionalized persons when they return to the community. In the public schools major program emphasis has been upon the development of programs at the secondary school level. Some local educational agencies have also implemented programs for disadvantaged adults. In one county, programs in typing, auto-mechanics, and household management were implemented in cooperation with the Community Action Agency. In the Appalachian area of Maryland a family-aide program for the disadvantaged has been developed through the inter-agency cooperation of the University of Maryland Extension Service and the Maryland State Department of Education.

There have also been four developmental programs implemented at the community college level.

Cooperative efforts between the Division of Compensatory, Urban, and Supplementary Programs and the Division of Vocational Education are developing vocational programs for migrant workers in Maryland. One of the vocational training mobile units on the Eastern Shore will be used for migrant education during the summer of 1971. Other vocational programs are in the planning stage.

Program Direction

In the absence of data regarding effective educational methods relating to the unique educational needs and learning styles of disadvantaged students, various types of programs are being developed. The following illustrate the variety of programming:

1. A cooperative work experience component has been included in many of the vocational programs for the disadvantaged. This technique is one of the effective ways of assisting disadvantaged students in making the transition from school to work. A self-contained classroom which facilitates a combined educational experience of one-half day of related education and one-half day of job training has been successful in providing disadvantaged students with basic competencies and skills needed for employment.
2. Individualized programs that permit the student to progress at his own rate and be in competition with himself are being developed

both in vocational skill areas and in the related educational areas. A typical comment from students in these programs has been—"I like it because I don't have to try to keep up with the person next to me."

3. Through the use of mobile facilities, three programs aimed at more effectively providing employment training for disadvantaged persons, were implemented on a multi-county basis. Short term individualized instructional programs in auto tune-up, typing, and merchandising are available on a rotating basis in six counties on the Eastern Shore of Maryland. The aim of these programs is to demonstrate the use of short-term individualized instruction in vocational education at the same time as basic vocational skills are provided to disadvantaged students.

4. Five vocational evaluation units, including one in a new vocational education center and four in mobile facilities, were opened this school year to serve eight counties. These units, which are available for both handicapped and disadvantaged persons, are designed to assess the employment potential of the students and to assist them in selecting an area of employment where they are most likely to find success. With a minimum of paper-pencil testing, realistic work samples are completed by the student as a basis for the evaluation.

Although the task has just begun, the Vocational Education Amendments of 1968 have provided an impetus to State and local educational agencies in tooling-up to make a sufficient quantity of quality vocational education programs available to all who desire it.

Inservice Education

Inservice education for teachers and State and local administrative and supervisory staff is crucial to the future development and implementation of vocational programs for disadvantaged persons.

Two types of inservice programs were provided in FY 1970. One was a two day conference, "Implementing Vocational Education Programs for Handicapped and Disadvantaged Persons," conducted in two areas of the State. Representatives of each local educational agency participated in this conference. The participants included vocational education supervisors, special education supervisors, teachers, principals, and guidance counselors. The other inservice program was a two week summer workshop for college credit offered to vocational education or related subject area teachers of disadvantaged students; 32 teachers participated.

Because inservice education is a key to providing employment training to disadvantaged students, additional inservice education workshops are being planned for the summer of 1971.

VOCATIONAL EDUCATION PROGRAMS FOR HANDICAPPED PERSONS

Program Development

In the development of vocational programs for handicapped persons, emphasis has been placed at the secondary school level. Fifteen local educational agencies have implemented vocational education programs for handicapped students, which include those identified as educable mentally retarded, trainable mentally retarded, blind, hearing impaired, physically and/or emotionally handicapped.

The training includes the related skills needed for employability such as work habits, work attiudes, and getting along with others. The jobs which can be carried out successfully by handicapped persons must be identified and vocational education curriculum developed to prepare persons for these jobs.

In vocational education programs for handicapped students, cooperative work experience in a sheltered situation and finally in industry, is an effective way to help these students make the transition from the school setting to the competitive work world. There are specific examples of trainable mentally retarded youth gaining acceptance in their communities because they are successfully fulfilling job responsibilities.

Close coordination between vocational education and special education is essential in assisting handicapped persons to become employable. The Vocational Education Amendments of 1968 have encouraged more coordinated efforts between vocational education and special education. There has been excellent cooperation between the Division of Vocational and Technical Education and the Office of Special Education in the Division of Instruction.

The Vocational Education Amendments of 1968 have also provided for resources to supplement the vocational education programs in institutions. The School for the Blind, for example, was able to expand its vocational exploratory program. This program permits the students to explore a variety of meaningful opportunities in order to determine their occupational interests and aptitudes. More comprehensive services have been provided clients of the Maryland Workshop for the Blind through the expansion of the training programs and a data processing program has been expanded at the Maryland School for the Deaf. Planning for program development with the educational staff of the State Department of Mental Hygiene is progressing; thus far no programs have been initiated although education for employment is an important factor in the rehabilitation of many of the patients.

The concept of vocational evaluation of handicapped students to assess their employment potential and to assist them in selecting an area of employment where they are most likely to find success has been given programming emphasis. Five vocational evaluation centers have been established to serve eight counties and to provide evaluation of both handicapped and disadvantaged persons. One of these centers is a permanent unit in a new vocational education center, and four are in mobile facilities serving multi-county areas.

Two major areas of concern that must receive emphasis in future programming are the following: curriculum modifications in vocational education to meet the unique employment possibilities of handicapped persons and preparation of vocational education teachers to effectively serve handicapped students.

Inservice Education

Inservice education is a crucial component in the continued development of vocational education programs for handicapped persons. Such programs are needed for teachers, and for State and local administrative and supervisory staff. A summer workshop to orient evaluators for their new assignment was conducted at Coppin State College. The workshop was sponsored cooperatively with the Office of Special Education and funded through P.L. 91-230 (P.L. 85-926).

Inservice education for the evaluators is a necessity because of the uniqueness of the program in the public school setting and the lack of qualified evaluators.

Two additional inservice programs were held during FY 1970. One was a two day conference conducted in two areas of the State on the topic "Implementing Vocational Education Programs for Handicapped and Disadvantaged Persons." Representatives from every local educational agency participated. The participants included supervisors of vocational education, supervisors of special education, principals, teachers, and guidance counselors. The other inservice program was a two week workshop for college credit sponsored by special education and vocational education and offered to vocational education or related subject area teachers of handicapped students. Approximately 20 teachers participated.

POST-SECONDARY

Vocational Education Act funds provide supplemental support for post-secondary career education programs in public community colleges. Since the passing of the 1963 Vocational Education Act, Maryland has placed almost total responsibility for the offering of post-secondary education with the community colleges which now number 14. The 1968 Vocational Education Act Amendments have had little effect in the area of regular Part B funding since the State has consistently allocated at least 15% for post-secondary education. The community colleges have been able to participate along with the secondary level in utilization of special category sources which were highlighted in the amendments. Notable examples among the special category participation include five research and three exemplary projects in FY 1971. The results of such projects will benefit the institution and have statewide implications for vocational-technical education.

Post-Secondary Programs

The number of career education programs has steadily climbed from a total of 111 in 1969 to 208 in 1971. These programs have been approved by the Division of Vocational and Technical Education as eligible for support under the Vocational Education Act of 1963 and the Amendments of 1968. Each program has as its primary objectives occupational competencies in a variety of positions in the business, social services, health-related, engineering, industrial, and other fields.

Presently 28 health-related programs provide student learning experiences that help train the paraprofessional manpower needed by hospitals and other medical agencies and offices. These programs range in specialization from radiologic technology to dental assisting, and they train many students from high density, low income urban areas as well as suburban and rural middle and low income areas. Several community colleges offer a number of these programs in affiliation with major hospitals and other cooperating agencies in their communities.

The 1968 Amendments to the Act have materially helped in the support of programs in the following additional areas and quantities:

Business	39
Technical	97
Trade and Industry	18

Cooperative Education

Cooperative education and other forms of related internship programs are gaining in numbers with several revisions of present programs now under way to provide this valuable integrated experience.

Guidance and Counseling

Guidance and counseling is a part of each vocational-technical program. Occupational information, self analysis and problem solving, program design, and job placement are available to regular post-secondary students. These services are also a part of a community services package designed to assist those people who are employed and unemployed.

Post-Secondary Students

There has been a sharp yearly increase in the total number of students served by community college career (occupational) programs ranging from 6079 in 1969 to 9216 (estimated) in 1971. Although the average age of these post-secondary students is approximately 20 years, and recent high school graduates comprise the majority of entrants, a large number of adults of all ages participate in these programs. Because community college career education programs include such objectives as job preparation, retraining, and apprenticeship training, a wide range of students are being served. Servicemen from nearby military installations and inmates from a penal institution are examples of those participating in community college programs.

Availability of Post-Secondary Education

Post-secondary vocational-technical education on a commuting basis is now available to over 90% of the State population. In the past year, one new community college has opened its doors with immediate vocational technical offerings. During fiscal year 1972, two additional community colleges will commence operations, and as a result, the number of post-secondary and adult potential students who reside beyond a reasonable commuting distance to a post-secondary institution will be further reduced. Post-secondary vocational technical federal support continues to play a major role in this expansion process since new institutions which are planning, initiating, and expanding career programs find this to be practically the sole Federal source of funds. In addition, State community college and local financial support is uniformly based upon numbers of students. However, the vocational-technical support formula takes into account other needs along with local characteristics.

RESEARCH—RCU

Maryland's Research Coordinating Unit was established in late 1969 during the fiscal year under the Amendments. Starting in July 1, 1969 (FY 1970) only $15,000 was allotted to the State. This did not even cover the salary of one RCU staff member. No grants were made and RCU activity was seriously limited.

The RCU designed new student-teacher data and follow-up systems.

The RCU is participating in the design of an evaluation system which is not yet fully developed. The system involves a State steering committee, regional committee, and local evaluation teams.

In FY 1971 seven research projects were approved and initiated. The follow-up results will not be available until next year. Projects are in the following areas:

Institutional Evaluation.
High School and Community College Program Relationships.
Computer Assisted Instruction.
Disadvantaged Programs.
Student Returnees.
Student-Teacher Follow-up Data System—Design and Implementation.
Aviation Manpower Needs.

CONSUMER AND HOMEMAKING (PART F)

New Programs

1. *A course in human development in the family.*—The course is designed for boys and girls in the upper grades in high school and provides an in-depth study of human development, human behavior, and self development.

Three groups—the high school youth, four-year olds, and their parents are involved. While each group has its own program, they have a definite relationship to each other.

2. *New courses in human development in the family.*—In the areas of human development and human nutrition, new courses have helped to increase the options for advanced study. Some schools have tripled the options offered.

3. *Consumer and homemaking consultant at the elementary level.*—The consultant serves four elementary schools in a very low income area. Students, teachers, parents, and community agencies are involved to improve the quality of personal and family living of the children and their parents.

4. *Consumer arts at the middle school level.*—Consumer arts courses for boys and girls at the middle school level replaced the traditional homemaking program in one school and serve as a model program.

5. *Consumer and homemaking consultant for adults in the inner city.*—The consultant will work with adults as an itinerant teacher for groups already established such as parent education groups, basic education classes, etc. The consultant will visit homes of adults upon request, work with parents of students in elementary schools, and assist in training aides where there is a component of consumer and homemaking education.

6. *Family aide program in Appalachia.*—The family aide program for disadvantaged in Maryland Applachia stresses inter-agency cooperation between the University of Maryland Extension Service and the Maryland State Department of Education. This project designed training programs, educational materials, methodologies, and evaluative procedures for a tri-county family aide program. Paraprofessionals (aides) recruited from Maryland Appalachia trained in consumer education, nutrition, and child development work with program clientele (disadvantaged families in Appalachia). The program is planned to meet family needs, improve family relationships and living conditions, and develop awareness of and use of available community resources. Developmental research is planned and will be reported

and disseminated. Implementation of the family aide program has resulted from inter-agency cooperation between the University of Maryland Extension Service and the Maryland State Department of Education.

7. *Special program for low income adults.*—New programs designed for adults with limited income are provided for parents in Head Start centers and through home visitation by the teacher during the extended school year.

8. *Preservice course.*—A course to help prepare teachers to work with disadvantaged students has been developed at the University of Maryland.

Expansion of Programs

Integration of consumer education concepts in all areas of homemaking and greater emphasis on areas of human development and human nutrition, career exploration, and management have expanded the program in many schools. The purchase of equipment for child study laboratories and current instructional materials in consumer education have greatly increased the quality of these courses.

Number and Types of Students Served

Both new and expanded programs have been made more relevant to boys. A definite trend showing that boys enroll in consumer and homemaking programs is evident. While most girls have an opportunity to enroll in home economics, program expansion is handicapped by lack of space. Funds are needed to provide programs that meet the special needs and interests of young people in all age groups and income levels.

Inservice

Inservice education has played a significant role in upgrading and/or developing new courses in consumer education. Twenty-one of the twenty-four educational agencies provided inservice education in consumer and homemaking education. Curriculum materials developed in nine workshops at the local level were disseminated to school systems throughout the State. Workshops and seminars held at the University of Maryland were concerned with consumer education for families with limited incomes, instructional methods, family relationships and human development.

COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

By relating vocational education to actual work situations, cooperative vocational education programs have become one of the most effective means of assisting students in making the transition from school to the world of work.

As a result of the Vocational Education Amendments of 1968, 15 new cooperative vocational education programs have been developed in Maryland. In addition, local educational agencies' plans call for an increase of 24 cooperative vocational education programs during FY 1972. Funds available under part G of the Amendments have been particularly helpful in providing initial resources needed to implement programs, especially for small educational agencies where single programs may have been developed in one school. The funds also have been valuable in allowing for an expansion of ongoing programs and have given impetus to the development of cooperative programs on a general countrywide basis.

Cooperative education programs are providing increasing opportunities to disadvantaged and handicapped persons to make the transition from school to full-time employment. Several programs have been funded jointly through Part G and Part B funds for programs for disadvantaged persons.

Curriculum development and inservice education must keep pace with program expansion. These areas have received emphasis, but much is yet to be done. Plans are formulated for increased activity in curriculum development and inservice education.

The Vocational Education Amendments of 1968 have provided a much needed thrust to cooperative vocational education programs. With the progress made during this short period of operation as a foundation, and the plans now being developed, the contributions cooperative vocational education programs can provide to the total spectrum of education are tremendous.

EXEMPLARY PROGRAMS AND PROJECTS

A. *Supported with Part D (Exemplary) Funds*

The limited Part D (Exemplary) funds have generated considerable innovative activity in Maryland in the field of vocational education. The portion of the Part D funds which were distributed by the Assistant State Superintendent for Vocational-Technical Education funded the following projects:

1. Staff development project for occupational awareness for Maryland's Appalachia.
2. Pre-vocational program development project in Baltimore County.
3. Post-secondary project in Charles County (Southern Maryland) designed to help disadvantaged youth to succeed in the community college.
4. Drop-out retrieval program in Baltimore County.
5. Planning project for Chesapeake College (Eastern Shore) for the purpose of developing a marine-environmental science technology program.
6. Vocational guidance differentiated staffing project in St. Mary's County.
7. Elementary (K–5) career development curriculum project in Howard County.
8. Career counseling, outreach, and placement program at Harford Junior College.

The "Commissioner's half" of exemplary funds were used in Maryland to fund a statewide career development project which was based on the work of the State's Inter-Divisional Task Force on Career Development. The Maryland Career Development Project provides for several programs or activities of an exemplary nature which are designed to facilitate the progress of career development.

B. Supported by Other Sources and Sections of the Vocational Education Act

The Division of Vocational-Technical Education's Operational Plan, the State Career Development Project, and the Task Force on Career Development have generated considerable interest in the concept of career development and its implications for education. This interest has resulted in many related activities funded from a variety of sources. There are 50 such programs and activities which are related to exploratory orientation and innovative services for children, youth, and adults. One such activity involved the cooperation of the Division of Vocational-Technical Education in the federally initiated "Twenty-Five Technical Career you Can Learn in Two Years or Less." Also a pilot project funded with NDEA Title V–A funds has demonstrated the value of a computerized counseling tool to assist high school students in learning about careers, and also about opportunities in institutions devoted to higher education.

WORK STUDY

When work study funds have been available, very effective programs have been conducted. Prior to the 1968 Amendments, these programs have operated almost exclusively in Baltimore City where there is a high percentage of disadvantaged youth. Baltimore City's needs far exceed the amount of funds available. In FY 1970, the total State allotment was utilized in Baltimore City, and since not enough funds were available to do more, only 203 vocational students were able to participate.

MASSACHUSETTS

REPORT FOR

COMMITTEE ON EDUCATION AND LABOR

United States House of Representatives

INTRODUCTION

Occupational education across the land is showing the most rapid growth of any part of the total education structure, a growth rate that was stimulated by the Vocational Act of 1963, P.L. 88-210; by the Vocational Amendments of 1968, P.L. 90-576; and the Manpower Development Acts.

The impact of these federal acts is evidenced by the increased numbers of trained youth. Vocational enrollments doubled in size between 1960 and 1970. In that period eleven regional vocational technical schools were constructed to absorb the influx.

Many and complex forces created this surge. Pressure for education with "relevancy" found in it a clear and definite goal. Increasing numbers are demanding career training for the opportunity to lead a productive life. As more vocational students successfully enter the job market, the non-college bound have become invidiously noticeable as "unemployed youth". Pressure to extend occupational education to this large segment of the school population has accelerated. Moreover, vocational education is viewed as a counterforce to social ills and can reflect in reduced welfare rolls and in reduced numbers in correctional institutions and mental hospitals.

The key fact is that vocational education is suddenly committed to absorb all segments of the population. In Massachusetts we see the enrollments in secondary schools increasing from 264,007 in 1965 to 356,400 in 1975 - a projected growth rate of 35% in this 10 year period. The population among the handicapped and the disadvantaged that vocational education plans to serve will triple in the next 5 years.

With present available resources Massachusetts cannot meet this vast new demand. The Massachusetts Department of Education is reorganizing its machinery to face this critical imperative. It is being geared to manage an operation of large new dimensions and complexity, and to provide effective services with reasonable efficiency to the citizens who claim an education that leads everyone at any level to a satisfying and productive life.

This report deals with the acknowledged successes of occupational education:

a) In areas of persistent unemployment, e.g., New Bedford with 12.2% unemployment (as of February, 1971)*, the New Bedford Vocational School reports 100% job placement of its graduates; Fall River with 9.7% unemployment, the Greater Fall River Regional Vocational Technical School reports 100% job placement.

b) The stimulus federal money provides in obtaining additional funds from the local community is striking. Every federal dollar is matched by $22.00 in local support.

c) The readily available trained manpower pool enhances the state's potential industrial growth.

This report describes the inevitability of the sudden new and accelerated expansion of occupational education in Massachusetts. It observes that the successful training, the job placements, and the satisfying goals have generated a surge that is straining its present capacity. It therefore asks the question: *Can it extend its services to the vast new numbers it ineluctably must reach, and provide effective trained manpower for the labor market without additional resources to do the job?*

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* Massachusetts Department of Commerce and Development, Bureau of Research and Statistics, February, 1971 Unemployment Rates

MASSACHUSETTS REPORT FOR U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON EDUCATION AND LABOR

ACKNOWLEDGEMENTS

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- . Financial summary
- . Massachusetts compared to national averages

UNIVERSALIZATION OF OCCUPATIONAL EDUCATION:

THE ESSENTIAL OBJECTIVES

The Statement of Philosophy of the Division of Occupational Education reads:

> *All citizens are entitled to an educational system which--while facilitating their emotional and social development as integrated human beings--provides them with saleable skills, knowledge, understandings and attitudes relevant to an ever-changing market and commensurate with their potentialities.*

The following major and essential objectives of universalization must be defined. The achievement of each is essential to reach the goal stated in the philosophy adopted by the Division of Occupational Education.

* ASSURANCE OF EXECUTING THE PUBLIC MANDATE. Administer its responsibility of coordinating, promoting and establishing vocational, technical, vocational adult, manpower education training and retraining, as charged by the federal laws and as charged by Chapter 837 of the General Laws of the Commonwealth.

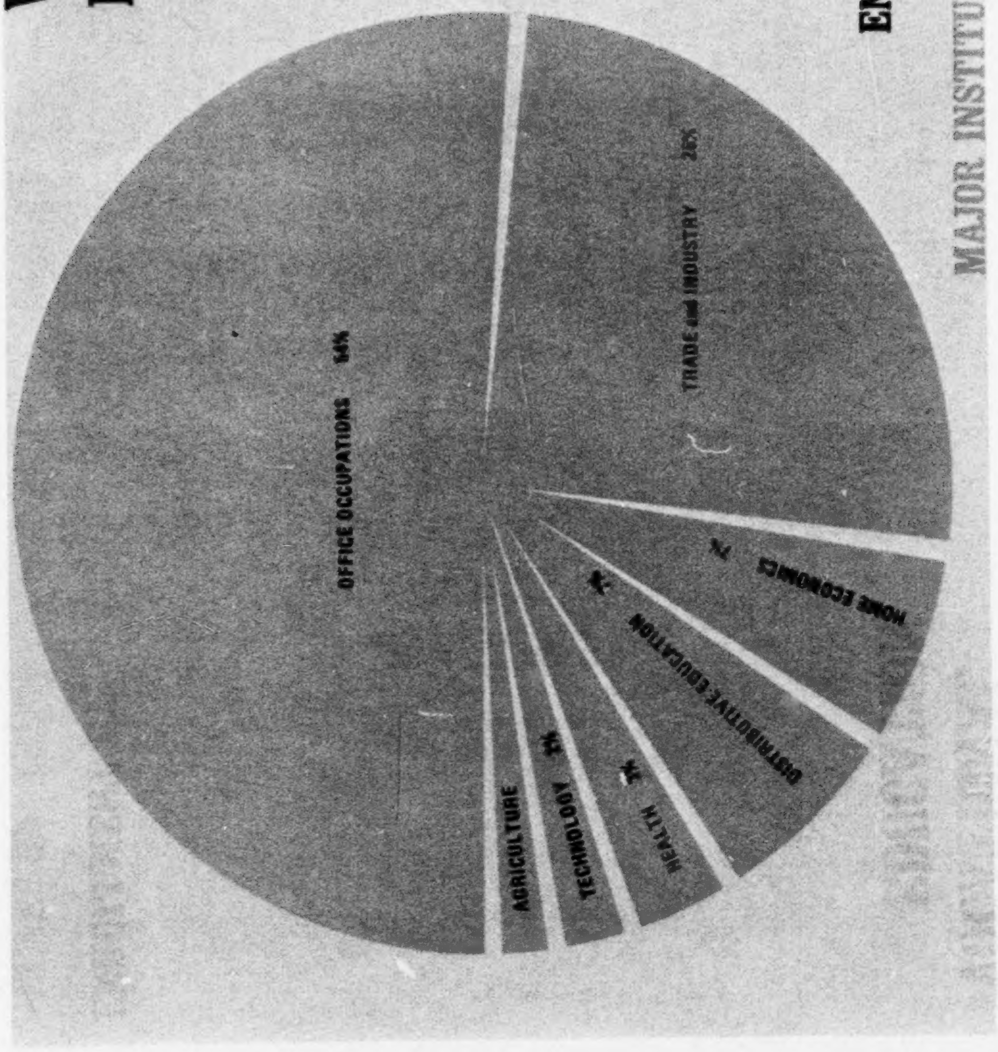
* ASSURANCE OF EXECUTING THE OBLIGATIONS TO THE BOARD OF EDUCATION. Expand and integrate occupational education, in accordance with the educational imperatives adopted by the Board of Education. (Document published January 16, 1971).

* IMPLEMENTATION OF EXPANSION AS DICTATED BY NEEDS IN THE GENERAL HIGH SCHOOL. Introduce and implement in the general academic high schools, occupational programs in all fields of vocational education and place within the grasp of everyone not bound for college the minimum marketable skills for job entry, and ensure the largest number of occupational offerings and career options for the greatest number of students.

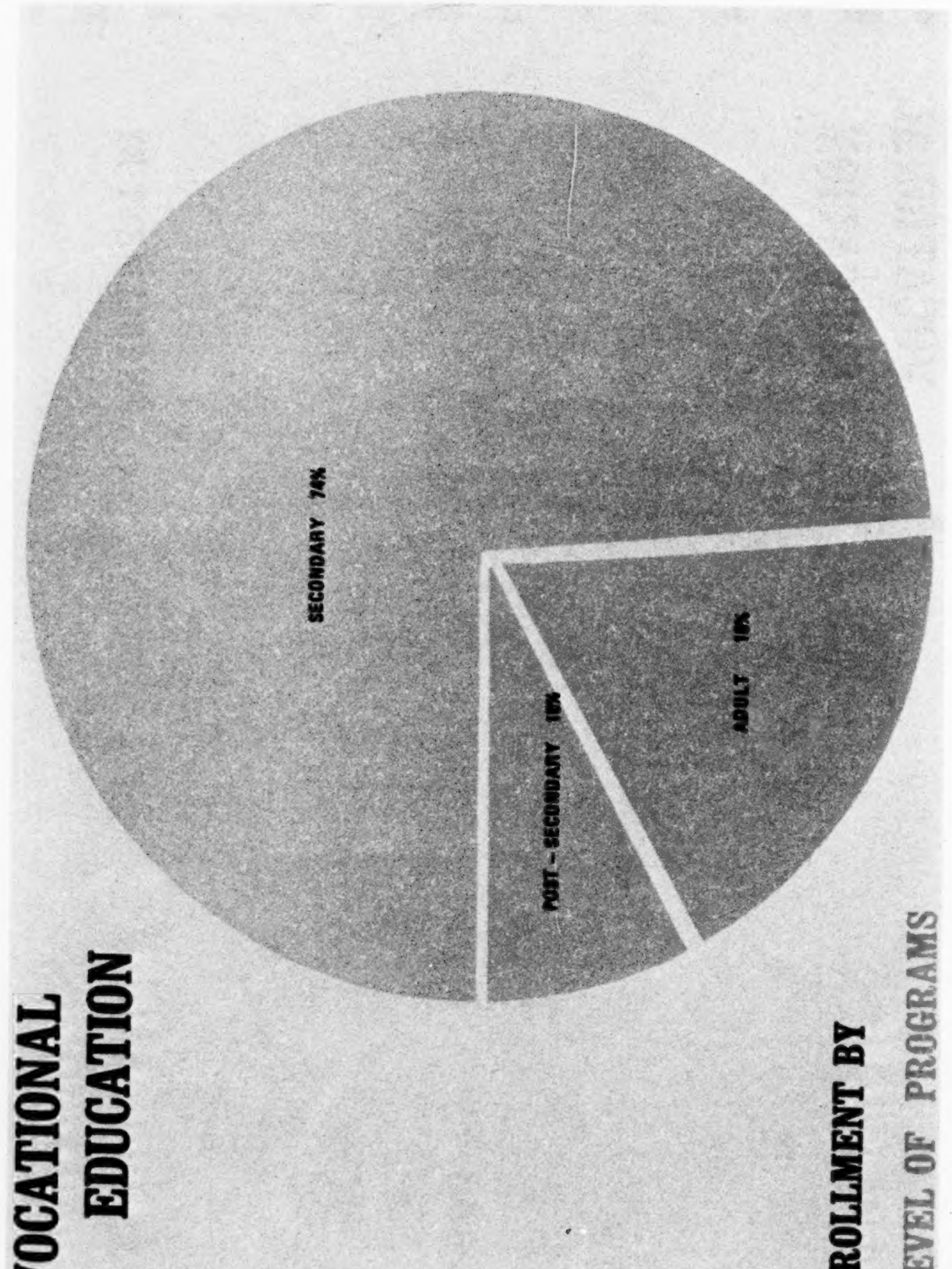
* EXPANSION OF OCCUPATIONAL PROGRAMS IN SPECIAL NEEDS. Extend and expand programs for the disadvantaged, those with special educational handicaps and those in post-secondary schools which will afford opportunity and ready access to vocational training or retraining.

* IMPROVEMENT OF COMMUNICATION AND COOPERATION WITH PUBLIC AND PRIVATE SECTORS. Communicate, cooperate and coordinate efforts with other manpower and governmental related agencies, which reflect the latest and changing manpower trends and needs of individuals in society.

VOCATIONAL EDUCATION

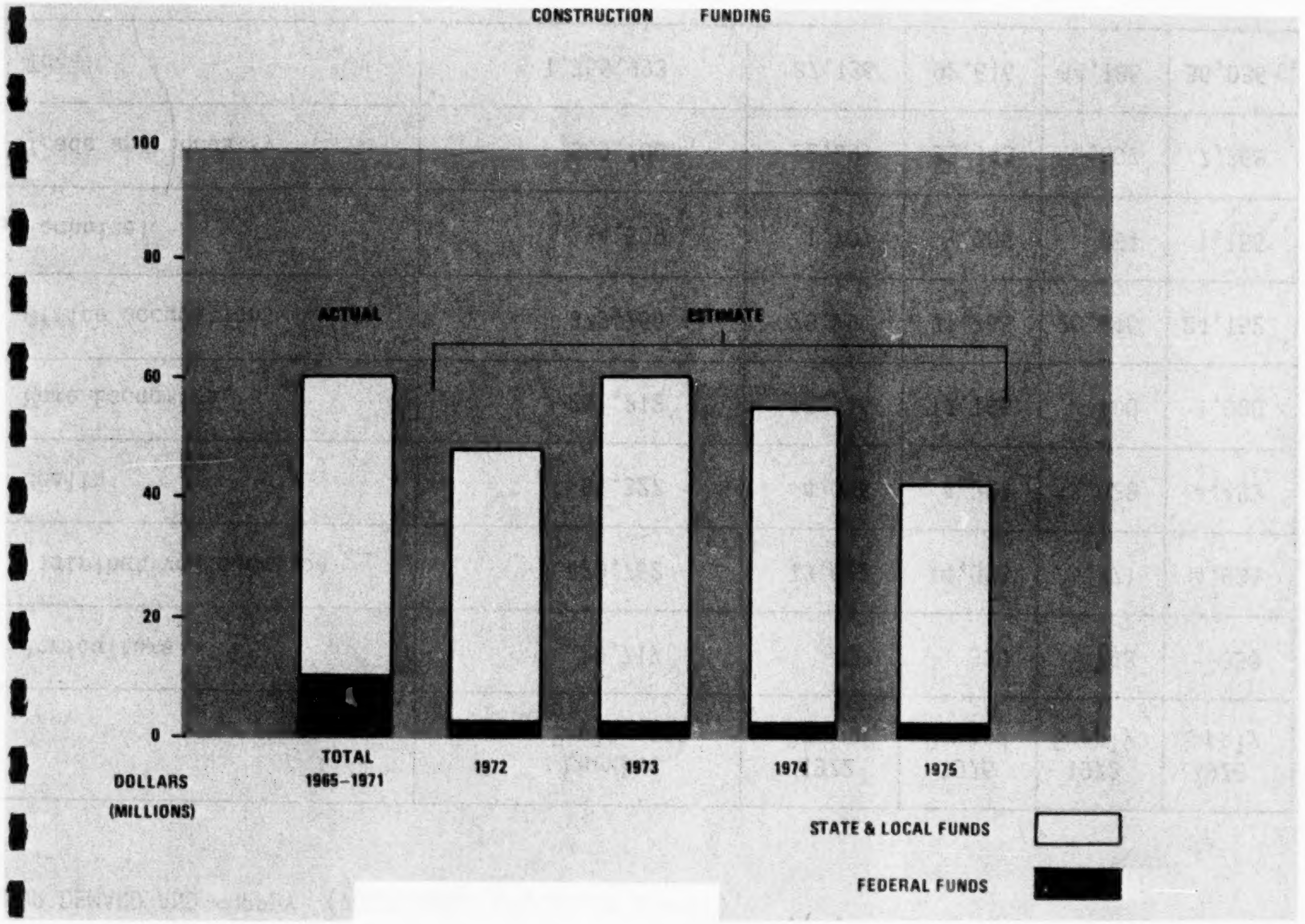


ENROLLMENT BY MAJOR INSTITUTIONAL PROGRAMS


VOCATIONAL EDUCATION
ENROLLMENT BY LEVEL OF PROGRAMS
SECONDARY 74%
POST - SECONDARY 10%
ADULT 16%

LABOR DEMAND AND SUPPLY (VOCATIONAL EDUCATION OUTPUT)

	Current Employment	1972 Demand	1976 Demand	1972 Supply	1976 Supply
Agriculture	29,717	450	350	193	350
Distributive Education	420,762	13,622	14,033	3,371	4,935
Health	51,327	4,055	4,363	3,028	4,433
Home Economics	251,212	15,916	17,156	100	1,000
Office Occupations	379,766	28,795	31,765	20,646	24,152
Technical	34,509	1,707	1,806	951	1,155
Trade and Industry	589,700	22,591	23,143	5,897	7,268
Total	1,756,993	87,136	92,616	34,186	36,036


CONSTRUCTION FUNDING
100
80
60
40
20
0
DOLLARS (MILLIONS)
ACTUAL
ESTIMATE
TOTAL 1965–1971
1972
1973
1974
1975
STATE & LOCAL FUNDS
FEDERAL FUNDS

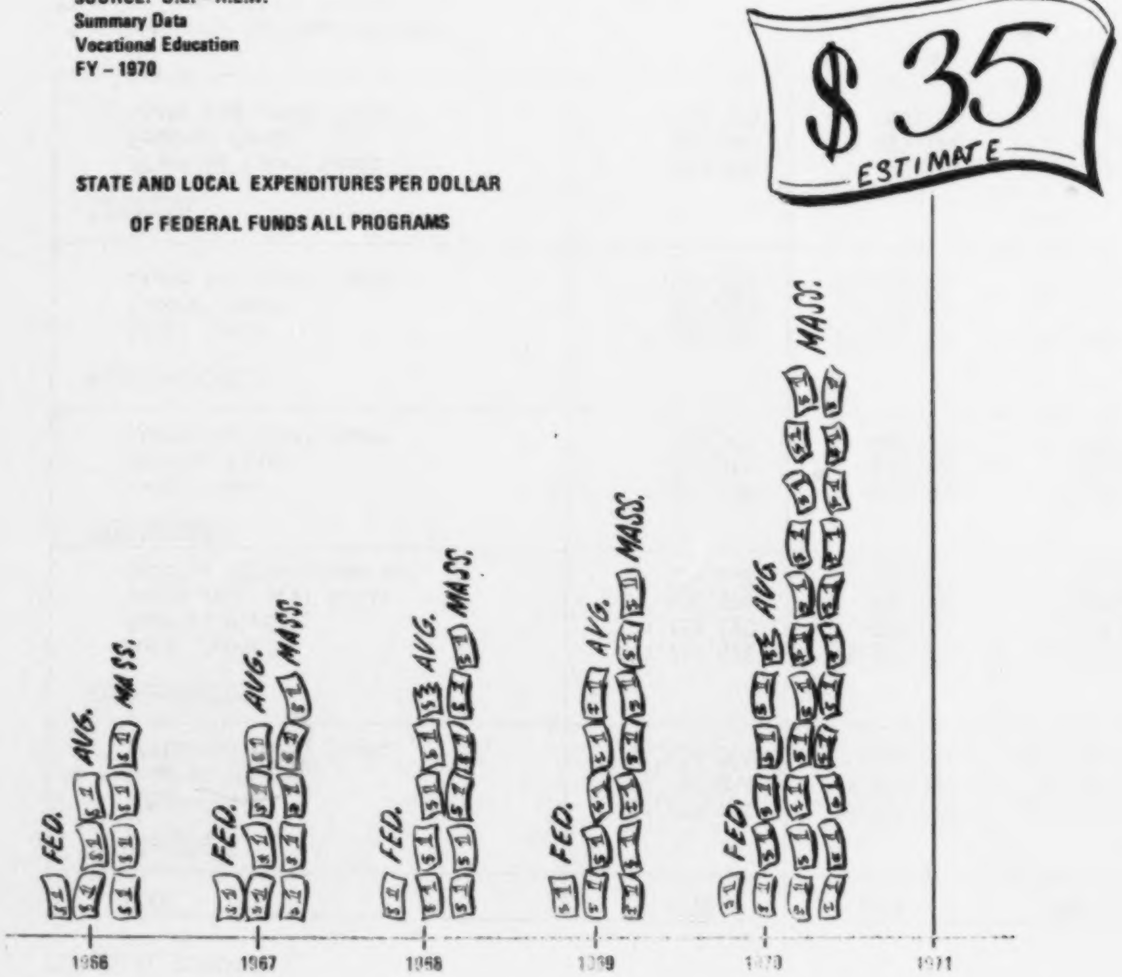
FINANCIAL SUMMARY

ITEM	1970	1971	1972 (est.)
Grand Totals			
Total Funds	84,773,934	130,936,147	203,015,891**
Federal Funds	8,118,634	9,202,515	11,043,017
State and Local Funds	76,655,000	121,733,632	191,972,880
Disadvantaged			
Total Funds	1,755,525	1,578,525	2,030,052
Federal Funds	1,155,525	978,525	1,130,052
State and Local Funds	600,000	600,000	900,000
Section 102(B) Federal	379,393	446,412	446,412
Handicapped			
Total Funds	1,070,350	952,340	1,239,810
Federal Funds	770,350	652,340	699,810
State and Local Funds	300,000	300,000	540,000
Post-Secondary			
Total Funds	5,978,525	17,626,201	22,240,708
Federal Funds	978,525	1,026,201	808,708
State and Local Funds	5,000,000	16,600,000	21,432,000
Research			
(Part D) Total Funds	493,900	455,549	546,659
Federal Funds	368,950	399,150	478,978
State and Local Funds	125,000	68,795	67,680

* - Community Colleges included
** - Includes Office Occupations

SOURCE: O.E. – H.E.W.
Summary Data
Vocational Education
FY – 1970

STATE AND LOCAL EXPENDITURES PER DOLLAR OF FEDERAL FUNDS ALL PROGRAMS



. Recent establishment of special needs section

. Staff background briefs

. Disadvantages

    .. trend chart
    .. summary chart
    .. financial summary
    .. specific programs

. Handicapped

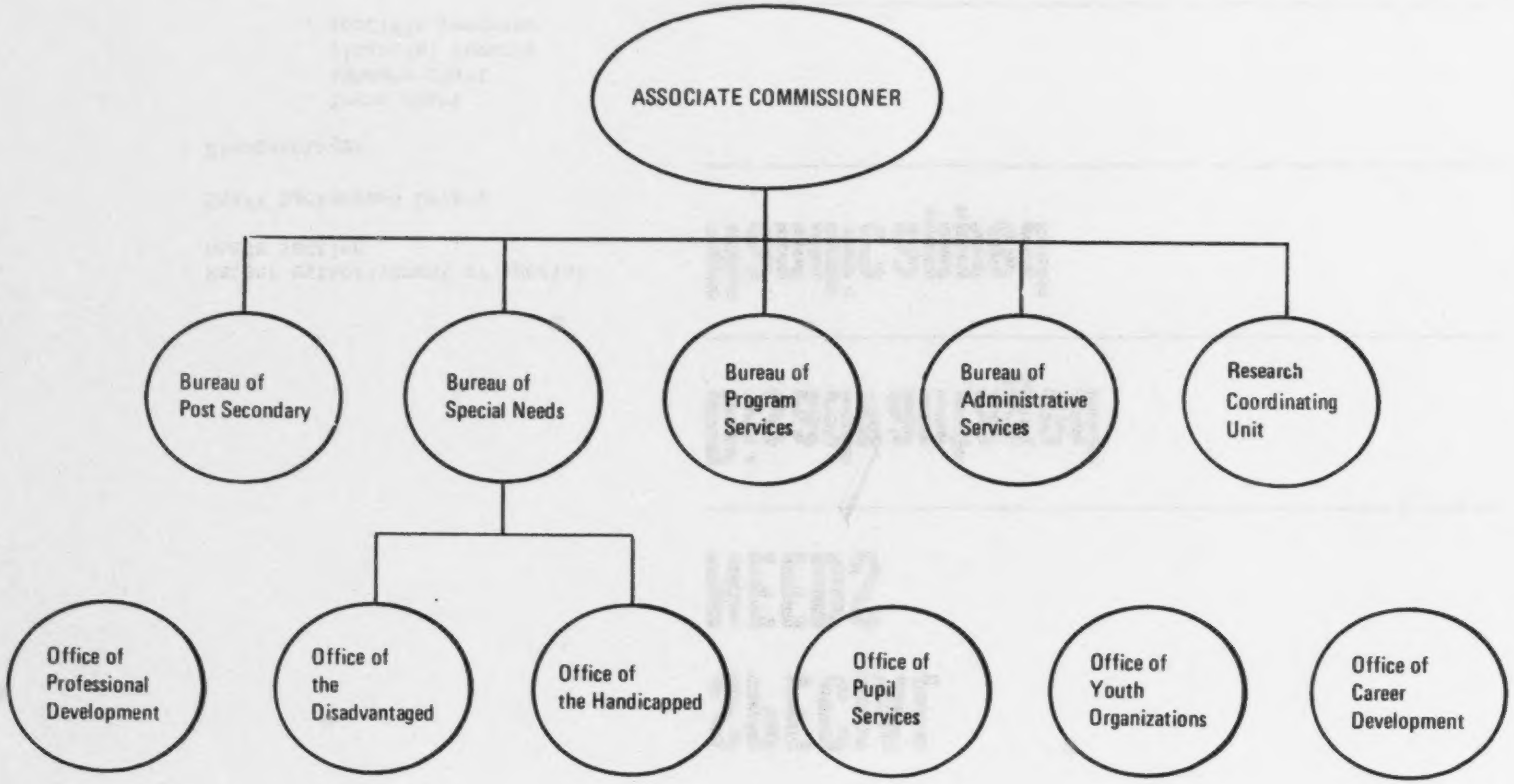
    .. trend chart
    .. summary chart
    .. financial summary
    .. specific programs

SPECIAL NEEDS

Disadvantaged

Handicapped

DIVISION OF OCCUPATIONAL EDUCATION


ASSOCIATE COMMISSIONER
Bureau of Post Secondary
Bureau of Special Needs
Bureau of Program Services
Bureau of Administrative Services
Research Coordinating Unit
Office of Professional Development
Office of the Disadvantaged
Office of the Handicapped
Office of Pupil Services
Office of Youth Organizations
Office of Career Development

BRIEFS OF STAFF'S BACKGROUND

Special Needs Bureau

Bureau Chief

The Bureau Chief has an educational background that includes a Bachelor of Science Degree, Bachelor of Arts Degree, Master of Arts (major in Urban Sociology) and a Master of Education (major in Remedial Education for the Disadvantaged and Handicapped).

He has worked as a high school teacher, remedial education teacher (Job Core OEO), field supervisor (Massachusetts Commonwealth Service Corps), director (Northeastern University Laboratory School), director (Northeastern University VISTA Training Program) and professor (Northeastern University School of Education). He has also had additional experience as an educational coordinator (ABCD) along with vast experience as an educational consultant.

The Bureau Director is currently a Doctoral Candidate in Foundations of Education (Brandeis and Boston University) and plans to complete the requirements during the summer of 1971.

Supervisor of Programs for Disadvantaged

The Supervisor for Disadvantaged Programs has an educational background that includes a Bachelor of Science Degree and a Master of Science Degree.

She has worked as a high school teacher, program director, recreation supervisor, cafeteria supervisor, home economist (U.S. Army). Her experience in working with the Disadvantaged has been significant.

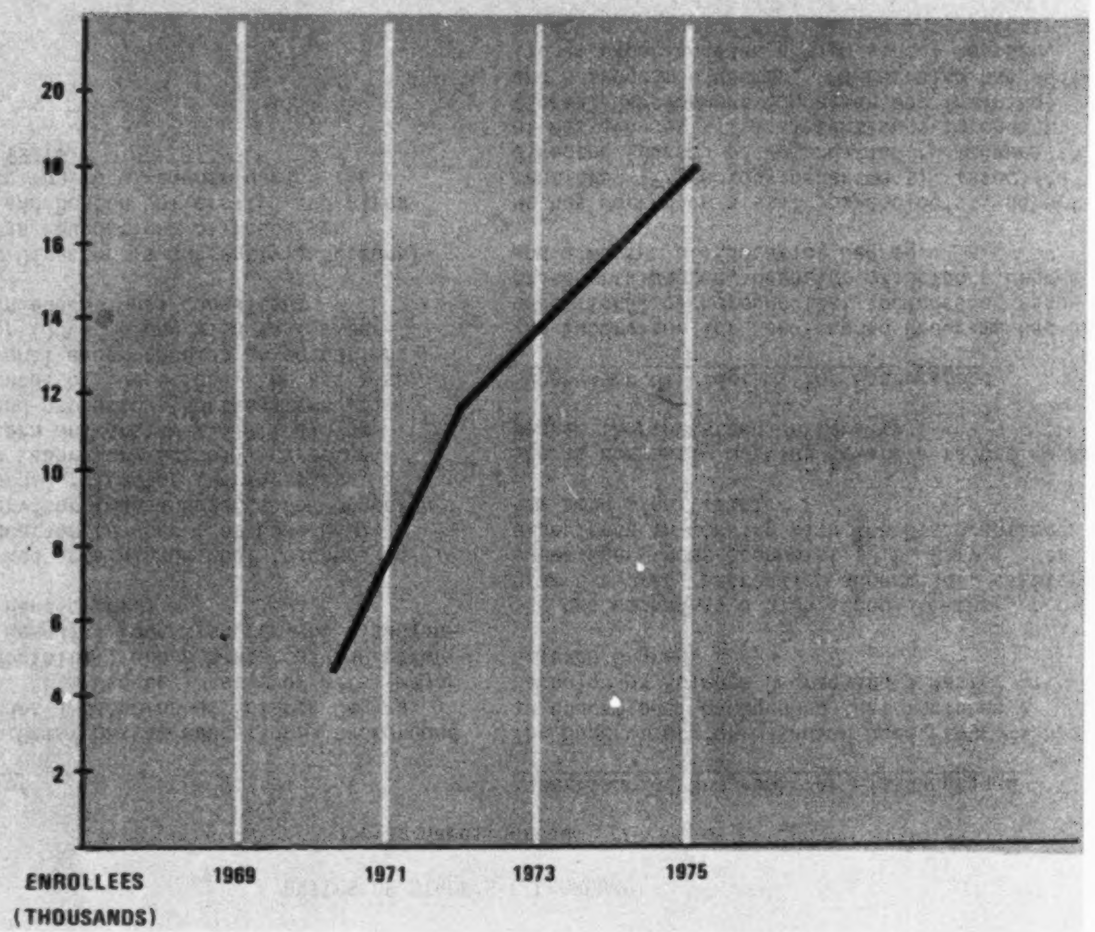
She is currently working toward a second Masters Degree (Northeastern University).

Supervisor of Programs for Handicapped

The Supervisor for Handicapped Programs has an educational background that includes an Associate Arts Degree, Bachelor of Science Degree and a Master of Education Degree.

He has worked as a staff psychologist, department head (Psychology Department), associate director (Bureau of Retardation, Commonwealth of Massachusetts), assistant superintendent (Social Development Education and Training) and a program director. He has also has additional experience as a high school teacher, guidance counselor and reading instructor.

He is currently working toward a CAGS in Special Education (Boston University).


DISADVANTAGED ENROLLMENT TREND IN VOCATIONAL EDUCATION

DISADVANTAGED

INSTRUCTIONAL PROGRAMS CONTINUING OR EXPANDING IN FY 1972

PROGRAM (OE-CODE)	PURPOSE	NUMBER OF PROGRAMS		NUMBER OF TEACHERS	ESTIMATED ENROLLMENT	ESTIMATED NUMBER TO COMPLETE 1972
		CONTINUING	EXPANDING			
01.000 Agriculture	D	1	-	1	11	4
04.000 Distributive Education	D	5	-	12	238	163
07.000 Health	D	5	1	29	85	80
09.000 Home Economics	D	28	11	53	3566	1389
14.000 Office Occupations	D	13	2	37	3135	772
16.000 Technical	D	1	-	1	120	120
17.000 Trades and Industry	D	32	1	95 (38)	2938	905
Totals		85	15	211 (38)	10,093	3433

DISADVANTAGED

NEW INSTRUCTIONAL PROGRAMS PLANNED IN FY 1972

PROGRAM (OE-CODE)	PURPOSE	NUMBER OF PROGRAMS	NUMBER OF TEACHERS	ESTIMATED ENROLLMENT	ESTIMATED NUMBER TO COMPLETE 1972
07.000 Health	D	4	11	165	50
09.000 Home Economics	D	11	20 (6)	560	575
14.000 Office Occupations	D	11	13 (3)	888	419
17.000 Trades and Industry	D	5	18	475	-
Totals		26	44 (9)	1713	854

PROGRAMS FOR DISADVANTAGED

Of the programs funded for the disadvantaged, the following descriptive statements reflect the projects which are most innovative and creative.

1. Boston High School
   Work Study Program
   Present Enrollment 429

High school drop-outs, selectedffrom the lower socio-economic depressed areas of the city, are provided with remediation in communication and computation skills. Students are placed in a real job situation with pay. The basic objective is to prepare the undereducated with a saleable skill. Exposure to the labor market opens awareness to the competive world and its opportunities. Class size is restricted to fifteen students. Initiated in 1966, the program has steadily increased in enrollment, maintained regular attendance, and reports 100% job placement of enrollees.

2. Massachusetts Correctional Institutions
   Program for Inmates
   (Waltham, Bridgewater, Concord, Norfolk, and Framingham)

This new program is a joint effort of the Division of Occupational Education and the Department of Correction and Bristol Community College. It services five state correctional institutions and a prison farm. The goal is to rehabilitate inmates by training them in marketable skills in six occupational areas: mechanics, electronics, data processing, carpentry, typing, and medical technicians. This project contends with the special difficulties of security, space, and prejudices regarding correctional institutions.

3. New England Medical Center
   Career Development, Health Services
   Boston

This program services the disadvantaged drop-outs, the under and un-employed. It offers the following career options: medical technician, medical assistant, and hospital aide and future plans include: medical secretary, dental assistant, and licensed practical nurse. Trainees receive work experience.

4. Project J.E.S.I. (Jobs, Employment, Self-Improvement)
   A Cooperative Program for Disadvantaged Youths.

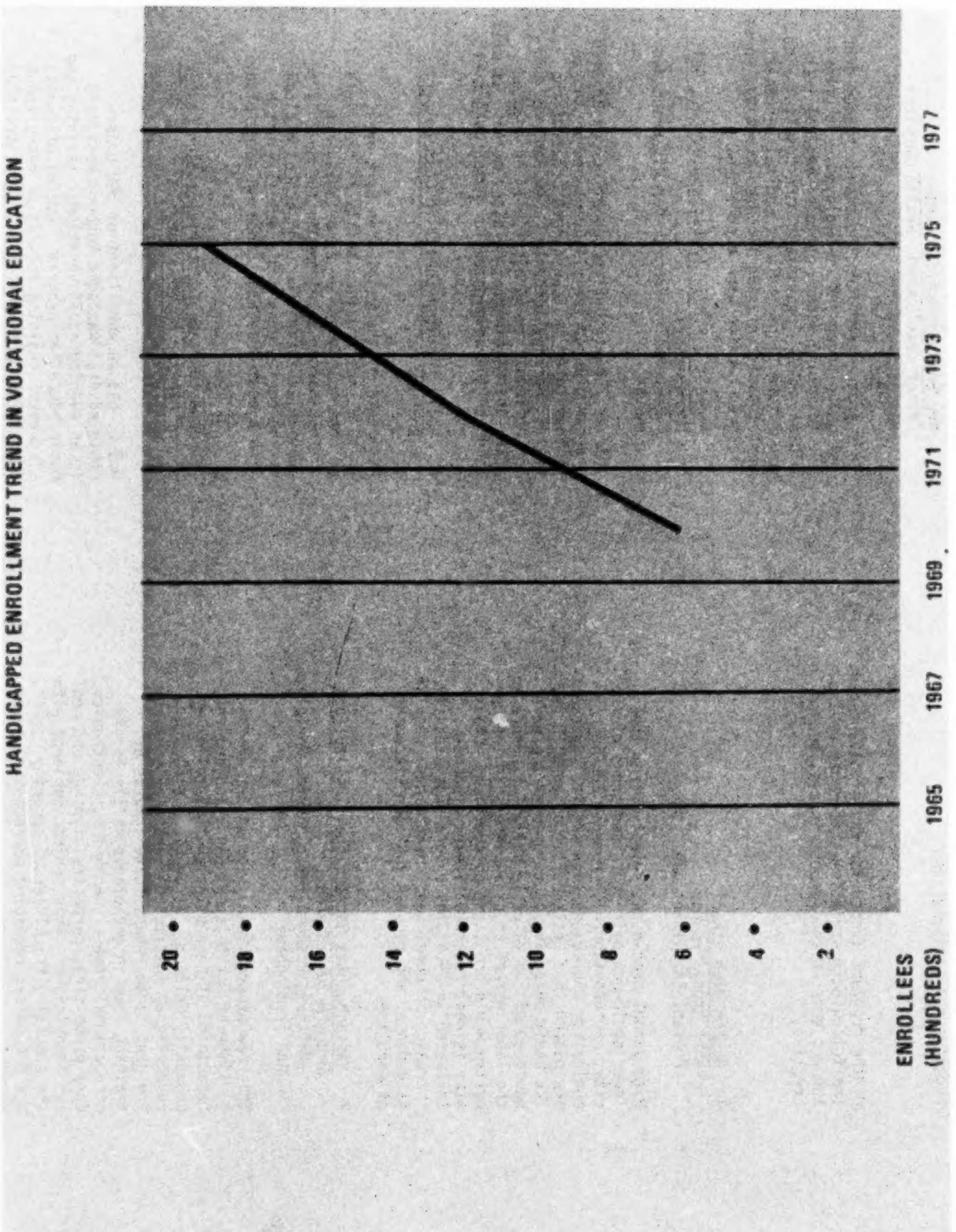
This is a distributive eudcation cooperative program planned for disadvantaged youths to be instituted in four target areas of the state: Boston, Worcester, New Bedford, and Springfield. The project will be adapted after the Wilmington, Delaware model. It will focus on the development of human potential.

5. Holly Training School in Cosmetology
   Roxbury

Residents of the Washington Park area, Roxbury, are provided skills in the field of cosmetology and an opportunity for further career development. The goal is to provide an accredited high school diploma or the equivalency and eventually establish a post-graduate school of cosmetology.

6. O.I.C.
   Opportunities Industrialization Center of Greater Boston, Inc.
   Dudley Street, Roxbury

O.I.C. has an enrollment of 300 under-employed disadvantaged Roxbury residents in an evening adult vocational training and basic education program. Cycles of twenty-six weeks' training consist of recruitment counseling, pre-vocational, skill training in eleven offerings, placement and follow-up.



HANDICAPPED ENROLLMENT TREND IN VOCATIONAL EDUCATION

HANDICAPPED

INSTRUCTIONAL PROGRAMS CONTINUING OR EXPANDING IN FY 1972

PROGRAM (OE-CODE)	PURPOSE	NUMBER OF PROGRAMS CONTINUING	NUMBER OF PROGRAMS EXPANDING	NUMBER OF TEACHERS	ESTIMATED ENROLLMENT	ESTIMATED NUMBER TO COMPLETE 1972
01.000 Agriculture	H	1	-	9	60	25
07.000 Health	H	1	-	9	150	97
09.000 Home Economics	H	4	3	6	369	201
14.000 Office Occupations	H	7	-	23	135	50
17.000 Trades and Industry	H	8	2	17 (20)	260	51
Totals		21	5	64 (20)	974	424

HANDICAPPED

NEW INSTRUCTIONAL PROGRAMS PLANNED IN FY 1972

PROGRAM (OE-CODE)	PURPOSE	NUMBER OF PROGRAMS	NUMBER OF TEACHERS	ESTIMATED ENROLLMENT	ESTIMATED NUMBER TO COMPLETE - 1972
07.000 Health	H	2	2	20	15
09.000 Home Economics	H	1	1	20	5
14.000 Office Occupations	H	2	3	95	35
17.000 Trade and Industry	H	3	9	130	12
Totals		8	15	265	67

PROGRAMS FOR HANDICAPPED

Of the programs funded for the handicapped, the following descriptive statements reflect the projects which are most innovative and creative.

1. New Bedford Mental Health, Inc.
   Rainbow Halfway House Vocational Rehabilitation for Mentally Retarded and Physically Handicapped

This is an expansion of vocational rehabilitation services in the New Bedford Area. The highly skilled and mobile staff at Rainbow Halfway House coordinates with other service agencies in the community. It provides residential facilities for handicapped persons participating in the training programs provided by Opportunity Center, federally funded for this purpose.

2. South Middlesex Regional Vocational School
   Vocational Training for the Moderately Retarded

This is a vocational training program for moderately mentally retarded individuals who are age sixteen or over. They follow a carefully prescribed three year plan. Training is offered in four specific job areas. Provision has been made for physical, mental and social adjustment to supplement the major emphasis of vocational training, job placement and follow-up.

3. Waltham Public Schools for Gaebler School
   Metropolitan State Hospital
   Children's Unit for the Moderately Emotionally Disturbed

A series of comprehensive diagnostic occupational evaluations is performed emphasizing the uniqueness of each individual student and his readiness for participation in a program with occupational aims. Information obtained together with the student's performance in a special simulated work sample, enables an evaluating team to determine the student's occupational interests, work attitudes and habits, special abilities, and job characteristics. The program guides the students to make an informed and realistic occupational choice.

4. Massasoit Community College
   Stenographic, Secretarial and Related for Handicapped

The program provides a feasible alternative to shorthand in the associate degree executive secretarial program and provides a one year certificate program in secretarial skills.

COOPERATION WITH OTHER AGENCIES

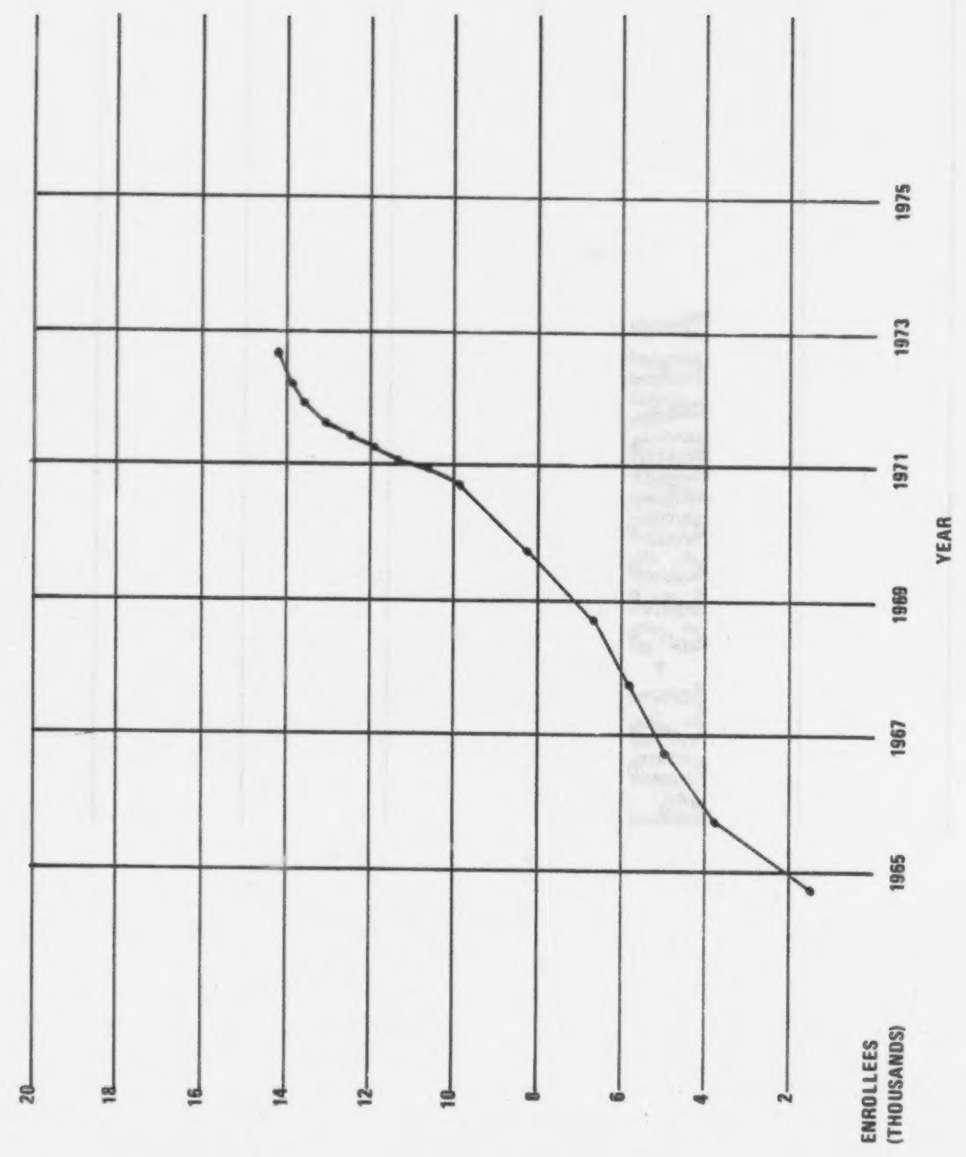
- The Division of Occupational Education has recently established the Occupational Education Staff Council for the Handicapped and Disadvantaged.
- The Council is represented by a wide grassroots membership:

  Department of Mental Health
  Department of Public Health
  Bureau of Developmental Disabilities
  Division of Employment Security
  Department of Correction
  Department of Youth Services
  Governor's Commission on Employment
  Division of Insurance
  Division of Special Education
  Massachusetts Rehabilitation Commission
  Commission for the Blind
  Department of Community Affairs
  Department of Labor
  Veterans Services
  Department of Rehabilitation
  Division of Civil Service

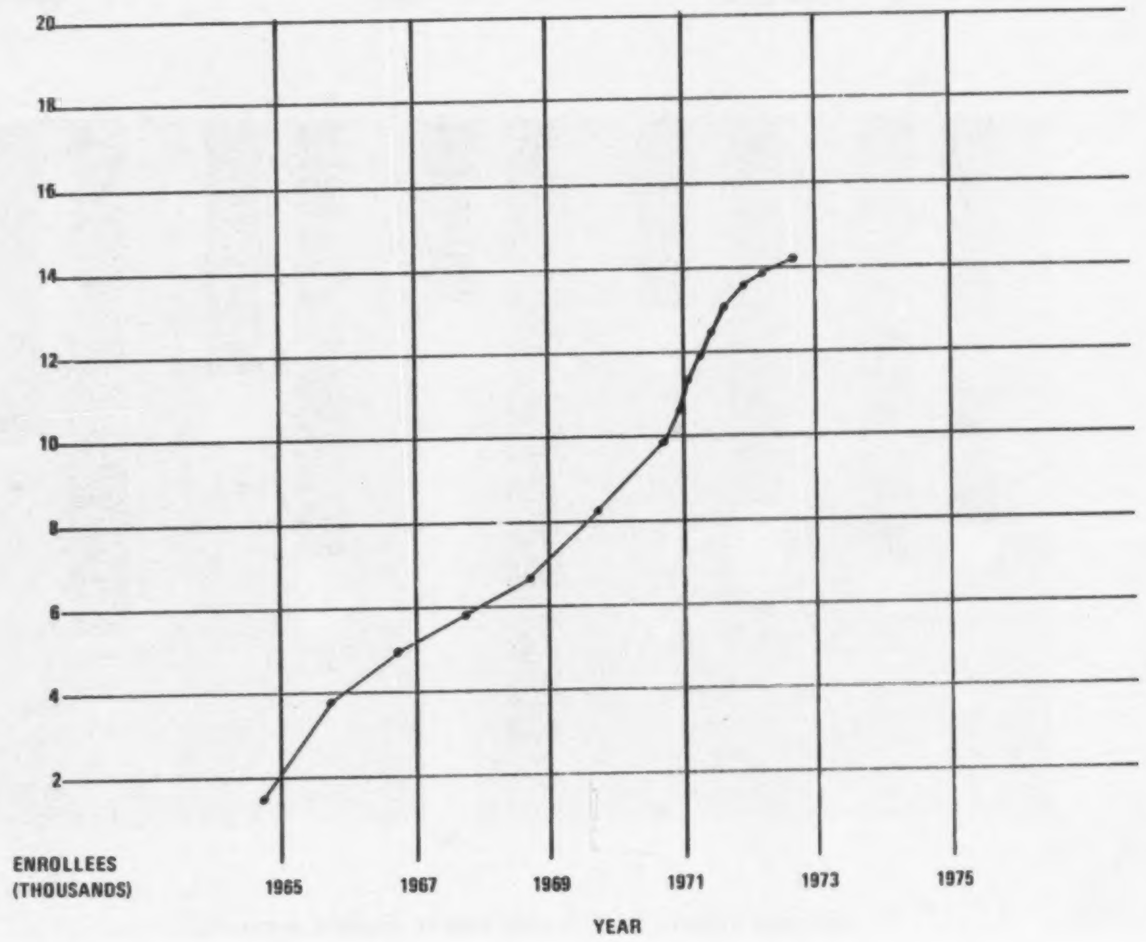
- Its primary function is to allocate federal monies effectively, efficiently and responsibly. A growth in the number of programs in the state and local education agencies will be the yardstick of accountability.
- Efforts are being made to combine, coordinate, and plan with industry to improve state and local policies for the training and employment of the handicapped and disadvantaged.
- Federal monies will stimulate the expansion of these programs and improve the effectiveness and efficiency of the administration of occupational training for the handicapped and the disadvantaged.

POST-SECONDARY

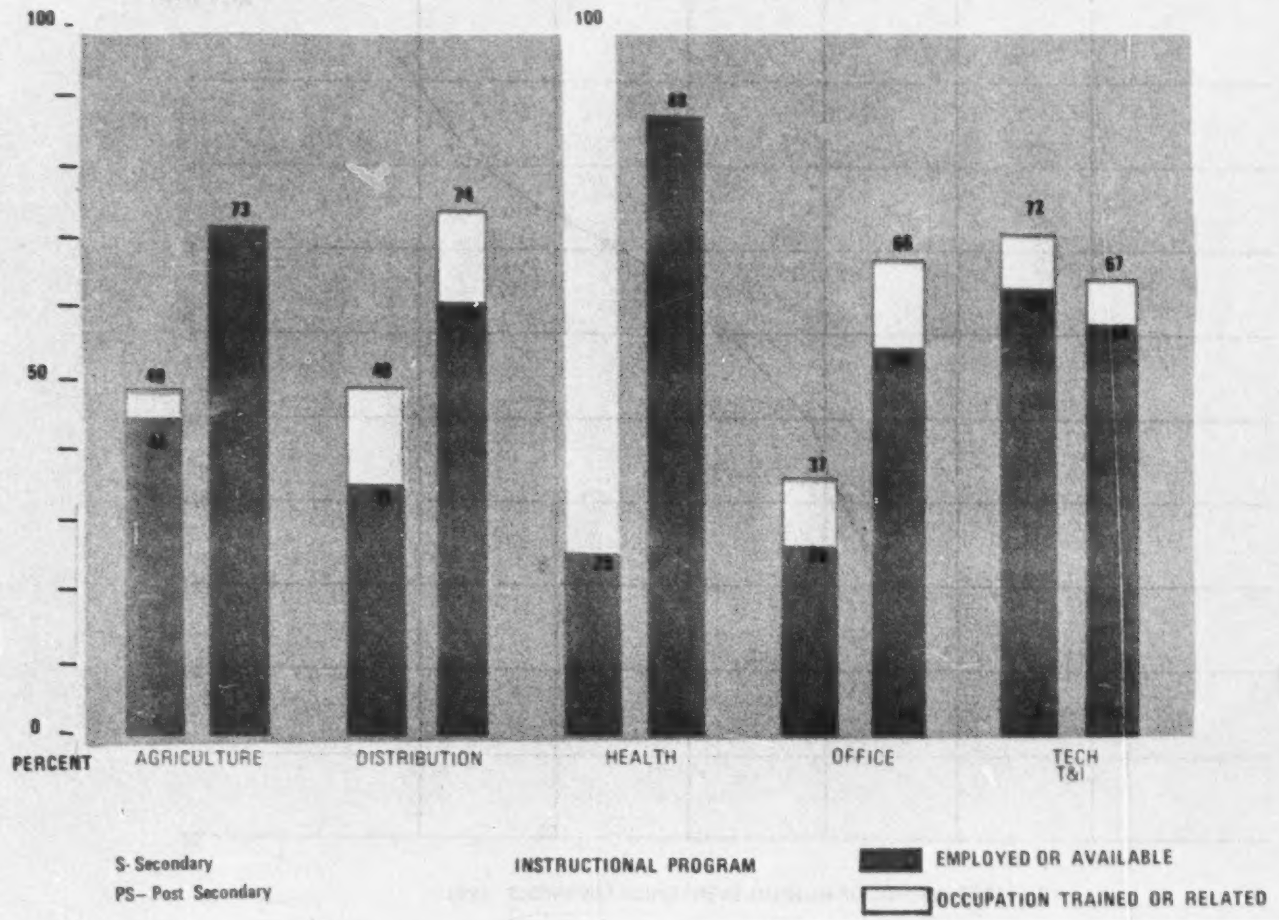
POST-SECONDARY ENROLLMENT TREND IN VOCATIONAL EDUCATION

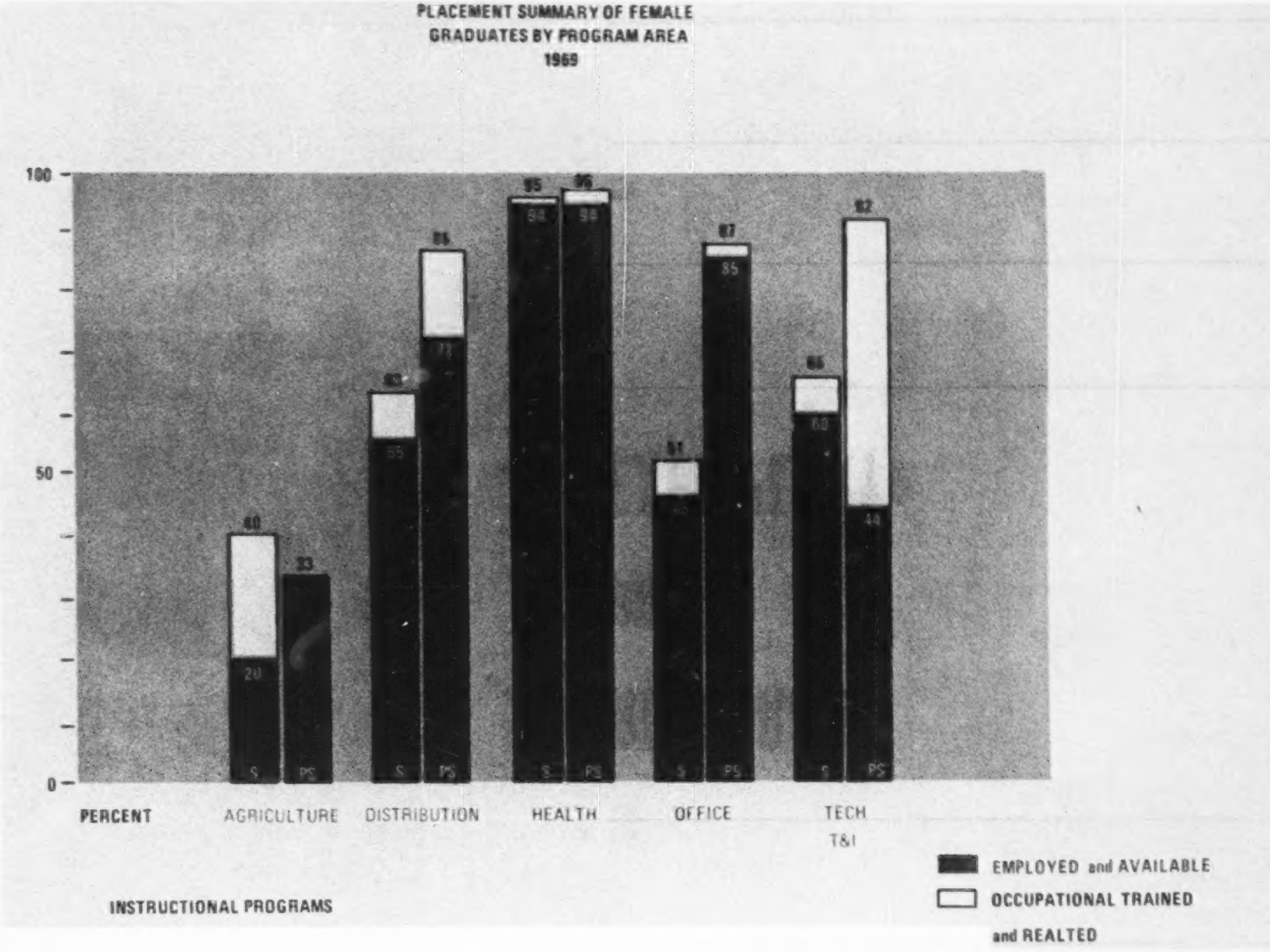


POST–SECONDARY ENROLLMENT TREND IN VOCATIONAL EDUCATION



PLACEMENT SUMMARY OF MALE GRADUATES BY PROGRAM AREA 1969





PLACEMENT SUMMARY OF FEMALE GRADUATES BY PROGRAM AREA 1969

RESEARCH
and
EXEMPLARY

IV. RESEARCH

A. Evaluation Service Center. - This is a joint program with New York and Massachusetts, developing a plan to use behavioral objectives to measure student attainment. Objectives are computerized by programs with a feedback to administrators of programs on both state and local levels.

B. Careers Development Programs. - These programs will be planned first for three pilot high schools and later implemented in high schools across the state. This is an approach to provide tens of thousands more high school students with vocational education.

C. Operations Research Management. - To provide operational information relating to management of vocational-technical education. This work includes data needs for federal reporting.

D. Document Information Center. - This system is to coordinate the dissemination of relevant research reports on vocational-technical education to the local school systems.

FUTURE FISCAL
and
PROGRAMATIC NEEDS

Emphasis on :

People

Special Needs

EMPHASIS ON PEOPLE

This report has shown that Occupational Education in Massachusetts has made aggressive and palpable moves into the segments of the population that had not previously been tapped.

Programs for the disadvantaged, now totaling 60 are housed in existing sites -- makeshift, improvised, expedient -- a variety that includes a thriving street academy in Springfield. Programs for the handicapped now numbering 56 are housed in facilities with simulated work environments equipped by private industry.

Adopting an aggressive leadership position, Occupational Education is instituting a new concept of career development education, to rescue the non-college bound student from the 4-year-diploma-that-leads-to-nowhere. This population in Massachusetts is estimated to reach 60% of the total in secondary schools. One such concept beginning September, 1971 will link Randolph High School with the Blue Hills Regional Vocational-Technical High School. The regional vocational school will serve as a skill center and vocational teachers will provide all skill training.

A new innovative career development project will be initiated beginning July 1, 1971 and instituted as pilot programs for the nation. This project authored by the Associate Commissioner and adoped by the Board of Education will establish an intensive and comprehensive research program to develop a new instructional systems-oriented process for occupational education in Massachusetts. It will store computer-based data banks of information on new and emerging occupations and it will develop task analysis information on each occupation with performance objectives.

The record shows that Occupational Education in Massachusetts has demonstrated its ability by recognized success:
a) In areas of persistent unemployment, e.g., New Bedford with 12.2% unemployment, the New Bedford Vocational School reports 100% job placement of its graduates; Fall River with 9.7% unemployment, the Greater Fall River Regional Vocational-Technical School reports 100% job placement.
b) The stimulus federal money provides in generating local community support is palpably clear. Every federal dollar is matched by $22.00 in local funds.
c) An upsurge in the demand for occupational education cannot be denied, slighted, or neglected.

The universalization goal Massachusetts has adopted would place within the grasp of everyone the minimum marketable skills to enable him to participate productively and satisfyingly in society at any point of exit from formal schooling.

This goal however, places a formidable strain on the present resources of the Division of Occupational Education. It introduces vast new numbers to vocational training. State Plan figures are:

	1972	1976
Non-College	301,000	356,400
Disadvantaged	188,000	205,355
Handicapped	64,308	109,560
TOTAL	553,308	671,315

The entire force and focus of occupational education in the Commonwealth, already in high gear, is to embrace the entire population, reach out to every individual at whatever level of performance skill he is, and train him for gainful employment and economic independence.

Universalization, now an inescapable and irrevocable goal in Massachusetts, seeks federal support and stimulus.

MICHIGAN

State Director—Edwin St. John

The Vocational Amendments have provided movement for significant change. This is evident in Michigan in the following areas:

1. The reorganization of the Vocational Education Services in the Department of Education.
2. The development of specialized experimental guidance projects.
3. Increased programing for the disadvantaged and handicapped.
4. The development of a State Advisory Council.
5. The revision of funding procedures.
6. The establishment of research priorities.
7. The implementation of exemplary programs.

Reorganization

The Vocational Education Service has been reorganized to operate around a career development concept rather than around narrow occupational areas. Within this service a World of Work unit has been established to bring about programing designed to develop a greater awareness of the knowledge and skills required for the world of work by implementing a total career or extended program throughout the elementary and secondary programs. This program concept will become operational in ten selected school districts in the fall of 1971.

Disadvantaged and Handicapped

Programing for the disadvantaged has provided opportunities for improved programing for over 12,000 disadvantaged and nearly 3,000 handicapped individuals in 72 public schools and nine community colleges.

In Mt. Pleasant a project designed to curb high school dropouts and provide reservation Indian students with building trade skills has indications of initial success. In December of 1970, ten high school dropouts from the Indian Reservation were placed in this program. At the end of the school year one had moved from the area, one had dropped out and the remainedr finished the school year.

In the Copper County Intermediate School District in Michigan's Upper Peninsula, a cooperative program with Vocational Rehabilitation was established to upgrade the vocational program for handicapped children. This program is providing supporting evidence that handicapped children should be included in vocational courses. This program has served 75 youngsters and will assist this recreational area by providing trained personnel for the service occupation job market.

In order to develop meaningful programs in the disadvantaged and handicapped areas, a variety of in-service education programs, including statewide Special Education-Vocational Education conferences have been held. Increased cooperation with Department of Health, Correction, as well as Special Education and Vocational Rehabilitation Services has been accomplished.

State Advisory Council

The State Advisory Council in 1970 made recommendations in three areas; Program Planning, Program Support and Program Accessibility.

In Program Planning the need for the development of an overall plan for administering vocational-technical programs, including the approval and coordination of all occupational training programs, regardless of funding source, by the Department of Education was called for. In the area of Program Support, the council called upon the State for additional financial support to be used for transportation of students attending area centers and for the added costs of vocational instruction. In order to increase program accessibility, the council encouraged the rapid expansion of the development of area centers and increased activity in placement services.

In addition, two studies by the council which will provide useful data are under way. One study concerns the opinions of former students, parents, and employers towards vocational education. Another study involves the development of information to identify the added costs of vocational education.

Guidance

With funds available for guidance, several specialized projects have been implemented. One project, operational in Flint, utilizes computers as counseling aids and is receiving praise from students. Four projects have been placed in operation to emphasize the placement function. One project, operational in an area skill center, is reporting the placement of 85% of the graduating seniors on jobs. Another project consisting of staffed mobile guidance units, jointly funded with the Upper Great Lakes Regional Commission, provides occupational guidance information to students in sparsely settled areas.

Research

Due to appropriation delays, a minimum of research projects have been implemented. However, the following areas of research activity are being given priority in Michigan:

1. Development of a vocational curriculum, which is: (a) developed from occupational task analyses; (b) based on performance goals; and (c) readily suited to varying degrees of individualized instruction.
2. Development of an information management system.
3. Developing a systems approach for vocational teacher education.
4. Development of a system which would allow on-going determination of manpower.

Funding

With the emphasis upon non-uniform distribution of funds under the Amendments, a formula which varied the distribution rates to local educational agencies for instruction was developed. It is our opinion that implementation of this portion of the legislation does not administratively allow for the flexibility needed in meeting vocational education needs.

It is essential that additional funds become available at the earliest possible date. In comparison to federal funds of $15,925,142 received in 1971, projections indicate a minimum need of $36,000,000 in federal funds in 1972, projected to $45,000,000 in 1976 to meet enrollment goals of 375,000 in 1971 to 490,000 in 1976. This compares to an enrollment of 265,000 in 1967 with federal funds of $10,372,000 available.

Exemplary

During fiscal 1971, ten exemplary projects have been funded. One project was to develop techniques which would deliver adequate occupational education to youth in a large, sparsely populated, depressed area of the state.

Findings from evaluation of the first year of the three-year project indicates that busing pupils from their home schools to various schools in the area, including a community college, provides: (1) increased course offerings to students; (2) opportunity for vocational training for more students; and (3) better utilization of facilities.

Another project was designed to overcome negative attitudes toward vocational education. A two-year Industrial Arts Curriculum Program in a metropolitan area replaced the traditional industrial arts courses offered for seventh and eighth grade students with book and hands-on experiences in building and manufacturing. This program motivated some students to develop marketable construction skills in a house building project. Negative attitudes in some sectors of the community toward jobs not requiring college training changed toward the positive. The school system adopted a portion of the curriculum under routine funding after only a one-year trial and plans to adopt the rest next year. Work is under way between Wisconsin and Michigan in the development of a regional training agreement involving students at both secondary and post-secondary levels.

Recommendations

1. Additional funding for vocational-technical education should be made available to the states at the earliest possible date. States should be informed of annual appropriations prior to the beginning of each fiscal year in order to give local educational agencies adequate time to plan and institute meaningful programing.
2. With the variety of legislation and proposed legislation relating to occupational training, legislation is needed which would provide for a Federal Department of Education and Manpower Training at a cabinet level position which would include a Bureau of Vocational-Technical Education with specific legislative assignments and sufficient staff for the coordination of all occupational and manpower training programs.
3. The wages specified in the Act for work-study allow a maximum of $45 per month, the same as was written in the 1963 Act. Since many schools use the work-study program as a component of special programs for disadvantaged and handicapped students, it would be helpful if the wage restrictions were raised so that students could be employed for a sufficient amount of time to make the working-learning situation valuable to them.
4. There should be a special attempt to simplify and stabilize Federal reporting forms for Vocational-Technical Education.

MINNESOTA

State Director—Robert P. Van Tries

PART I

I. Research

A. STATE-LEVEL ORGANIZATIONAL IMPACT

In order to organize in a manner that would efficiently utilize and enhance the potential impact of Parts C and D funds, "research" was considered a subsystem whose mission was to serve vocational education by facilitating qualitative improvements in the State's vocational program.

Several continuing "research-related" functions were thought essential to carrying out the mission of the "research" subsystem, and three state-level units were created to conduct those continuing functions: (1) A Program Planning and Development Section was formed to carry out normative program development activities, conduct operational research, and administer research and development funds. The Section was placed in the Vocational Division of the State Department (reporting directly to the State Director) so that it would be sensitive and responsive to the immediate informational and program development needs of the operating vocational program and where it would be linked closely with program planning.[1] (2) An Evaluation Section was created to conduct systematically macro-and micro-level program evaluations; it too was placed in the Vocational Division of the State Department (reporting directly to the State Director) to insure immediate application of evaluative feedback in the operating program. (3) A Research Coordinating Unit was placed at the University of Minnesota. It is to engage in those kinds of continuing research-related functions that have longer-range payoff potential for the operating program: (a) stimulating, facilitating and coordinating the research and development efforts of individuals throughout the State; (b) disseminating research-related information to assist R & D efforts and to speed the implementation of worthy educational innovations; (c) encouraging and conducting research training activities; and (d) conducting research and innovative developmental projects that have potential for making long-range and general qualitative improvements in vocational education (attacking complex problems).

In addition to the development of these three units, each charged with responsibility for specific continuing research-related functions, a Research and Development Review Committee was created. The major purposes of this Committee were to establish statewide R & D priorities and to recommend to the State Director those specific R & D projects (Parts C and D) submitted by individuals throughout the State that should be supported by state-controlled funds. The Committee membership includes representatives from the Department of Labor, higher education institutions, State Advisory Council for Vocational Education, local vocational programs, and is served by staff from the Research Coordinating Unit and the Program Planning and Development Section.

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[1] Program planning per se is not considered a "research-related" function in Minnesota.

B. NATURE AND IMPACT OF RESEARCH-RELATED ACTIVITIES

1. Program Planning and Development Section

A major effort of the Program Planning and Development Section (PP&D) in fiscal year 1970 was the establishment and programmatic development of the first three secondary-level vocational centers in Minneapolis. Like other states with large rural areas and sparsely populated school districts, it has been extremely difficult to mount comprehensive vocational programs in each high school. The vocational center concept encourages several separate school districts to combine their students and resources for the purpose of increasing the scope of vocational offerings that can be provided economically. The first three schools served sixteen school districts. The success of this venture can be measured by the rapidity with which the concept is being implemented in the State—in 1970–71 fourteen centers were operating, and twenty-five centers are projected for the 1971–72 academic year. Minnesota anticipates the eventual operation of one hundred such centers.

In addition to the secondary vocational center development effort, personnel of the PP&D Section were instrumental in developing and introducing at the post-secondary level twelve occupational curriculums that were new to this State, and expanding existing curriculums to other schools.

With growing momentum for vocational centers, the staff of the PP&D Section (in conjunction with Research Coordinating Unit staff) directed its developmental efforts in FY 1971 to the introduction of occupational orientation and exploration programs at the elementary, junior high, and senior high school levels. While it is too early to assess the impact of this effort in terms of the numbers of successful programs established, it is known that at least thirty school districts are seriously considering the establishment of three programs and that eleven districts are, in fact, in the process of developing and implementing them.

2. Evaluation Section

A system for regularly evaluating the "process" of all the vocational programs in the State has been developed and is being conducted by the Evaluation Section. Every other year each school engages in a self-appraisal of its vocational programs using evaluative criteria developed by vocational educators in the State. The criteria takes the form of a rating scale and cover such aspects of the program as content, facilities, instructional modes, teacher qualifications, etc. On the alternate years, each school is visited by a team of experts, consisting of appropriate persons drawn from the business-industry community. Constructive criticisms, as well as ratings, are fed back immediately to program operators to use in improving programs.

[Follow-up of graduates is accomplished by the project described in a subsequent section of this report dealing with the Research and Development Review Committee. In addition, the evaluation project described in the portion of this report dealing with Research Coordinating Unit activities is attempting to relate job performance measures to program characteristics (process) to provide empirical evidence about the relative effectiveness of different vocational program characteristics.]

3. Research Coordinating Unit for Vocational Education

The RCU was assigned four continuing functions as a part of the State's "research" sub-system. In planning activities to carry out those functions, "programs" (representing long-range but specific goals) have been set forth for each function, and then projects (representing activities to be conducted) have been designed annually to attain each program goal. Thus, projects comprise programs and programs carry out functions. The following very briefly summarizes the progress made during the last two years by the RCU toward attaining long-range program goals within each of its four assigned functions:

> *a. Function: Stimulating, facilitating and coordinating the research and development efforts of individuals throughout the State.*

(1) Program—Administer a system for coordinating funded R & D projects in the State: (i) Two studies have been completed to determine the perceived R & D needs of vocational educators in the State, (ii) one study has assessed the human resources available for carrying out R & D efforts in the State; (iii) an annotated bibliography of studies completed in Minnesota (1967–70) is ready for publication; (iv) considerable staff time has been devoted to the organization of the Research and Development Review Committee and to developing its operating policies, establishing project funding regulations and formulating statewide R & D priorities.

(2) Program—Increase the amount of vocational education R & D activity in the State: (i) Forty-eight proposals for planning "orientation to work" programs (occupational orientation and exploration) at the elementary, junior and senior high school levels, and thirty project proposals for developing and operating "orientation to work" programs (all under Part D) were generated [a study is now underway to assess the additional activity stimulated that did not necessarily result in project proposals]; (ii) fifty research proposals for low cost projects designed to have immediate application at the local school level were generated; and thirty-one were funded and are now being supervised by the RCU; (iii) five issues of a newsletter, *News and Reviews* (containing research-related materials), have been published and distributed to all vocational educators in the State; an evaluation indicates that a high proportion of practitioners actually use the information contained in the newsletter in their subsequent activities.

(3) Program—Assist in the planning and conduct of others R & D projects: (i) Six research conferences have been conducted and three conference reports have been published and disseminated; (ii) over 1200 man hours of technical consultation has been provided to those who requested assistance on their vocational R & D projects.

b. Function: Disseminate research-related information to assist R & D efforts and to speed the implementation of worthy educational innovations.

(1) Program—Maintain an up-to-date research library: (i) The library now contains about 8,000 microfiche, microfilm and hard copy items; all items are listed on computer tape for ready access through descriptor word computer search.

(2) Program—Maintain relevant mailing lists: (i) The mailing list of over 7000 names is now placed on IBM cards which can be sorted by machine into desired categories, and then printed on mailing labels automatically arranged by zip code number.

(3) Program—Make readily available to those vocational educators in the State who request existing reports of research and related materials: (i) Microfiche readers and sets of the ARM and AIM indexes have been placed in all area vocational and technical schools of the State (after a survey determined that these facilities were not available through libraries or other schools in the State); (ii) copies of microfiche are provided free to individuals who request them; (iii) more than 470 computer searchers of RCU library holdings have been made free of charge for individuals requesting the service; (iv) about 100 hard copies of selected studies have been reproduced and distributed to individuals requesting them.

(4) Program—Repackage the results of R & D for dissemination to selected audiences: (i) One review of research has been published and distributed and two others are in preparation; (ii) more than 350 requests from individuals for copies of RCU publications have been filled (after initial distribution of the publications were made).

c. Function: Increase the number and improve the competence of producers and consumers of vocational research-related materials.

(1) Program—Increase the R& D competencies of regular graduate students: (i) The RCU administers the USOE/BR-sponsored research training program entitled "Preparing researchers in vocational education" (5 doctoral fellows for three-year programs); (ii) RCU personnel direct the USOE/BEPD-sponsored three-year program entitled "Leadership training in vocational education" (15 doctoral fellows for three-year programs).

d. Function: Create knowledge and useful products that have potential for making long-range and general qualitative improvements in vocational education.

(1) Program—Develop a statewide system for empirically evaluating the effectiveness of post-high school vocational programs: (i) The system has been conceptualized; (ii) data about applicants, enrollees, progress through vocational program, and school leavers after one year are now being gathered on a regular basis (see Follow-up system); (iii) the sensitivity of criterion measures based upon the job performance of former students (gathered by the Follow-up system) is being tested and new indices to describe vocational program process characteristics and socio-economic characteristics of geographical areas are being developed; (iv) two technical reports (about the development of education production functions and measuring job-relatedness) are being published. [By the end of FY 1972 the first generation of an empirical

system to evaluate relative curriculum effectiveness will have been developed and tested.]

(2) Program—Design a procedure for developing vocational curriculums: (i) An invitational conference on the process and techniques of vocational curriculum development was held, and a report was published and distributed to a select national audience; (ii) two studies are now underway to determine the importance of content organization (structure) in student learning and in the subsequent application of content to occupational tasks.

(3) Program—Design a system for meeting the vocational education personnel needs in the State: (i) A model for predicting the numbers of vocational teachers needed in the State (by field and by year) was developed and predictions made for use in the State Plan; (ii) a study of the relative effectiveness of using peers or high school students in micro teaching situations in teacher education classes was completed; (iii) a study of the efficiency of the teleconference as a means of supervising student teachers is being completed; it is likely that the results will cause a change in student teaching supervision procedures at the University of Minnesota; (iv) a proposal for the creation of a Ph.D. degree and an Ed.D. degree in Vocational Education was developed and subsequently approved by the State and University Regents for immediate implementation at the University of Minnesota; (v) a developmental project designed to redevelop graduate level programs in vocational education is underway.

(4) Program—Design a system for vocational planning: (i) A model to assess "people needs" has been developed. [Work on other parts of the system will receive a high priority for subsequent years.]

(5) Program—Improve adult management training: (i) A prototype model for using the computer in adult management training and for solving actual business problems have been completed; this involves using a computerized system for figuring least-cost beef rations for feedlot operators; a monograph is being published.

(6) Program—Investigate the factors effecting educational and occupational choice: (i) a study has been completed on the occupational aspirations and expectations of high school students; (ii) a study to determine the perceptions of high school students toward postsecondary vocational programs in area vocational-technical schools and junior colleges in Minnesota is under way.

C. PROJECTS

The following are the major individual projects supported by Part C and D funds in FY 1970 and FY 1971 through Committee recommendations:

1. Support was given to those schools creating pilot secondary vocational centers.
2. Sixteen planning grants were awarded from Part D funds to develop proposals for "orientation-to-the-world-of-work" programs. These programs are designed to facilitate the career orientation and exploration of all youth.
3. Eleven projects were later funded from Part D monies to further develop, operate and evaluate "orientation-to-the-world-of-work" programs.

4. A "follow-up system has been started which gathers data on post-secondary vocational program enrollees, follows student progress through the program, and collects additional information from former students about one year after they have left the vocational program. It is expected that next year the system will be expanded to include the collection of data about program applicants. As it now exists, the system satisfies the need to account for students; in the future it is anticipated that it will provide basic data to help in program planning and in program evaluation.

5. Funds have been used to help support a statewide student testing program (at the junior year of high school) which provides data about student characteristics and educational expectations essential to vocational program planning in the State. [Such data has already been used in legislative hearings to support plans for increased vocational services in the State.]

6. An information center has been created at one area vocational and technical school in the State. Collect calls from anywhere in the State to the center will immediately yield information about where in the State vocational programs of different kinds are offered and where there are current openings for students.

7. A performance-based curriculum development project in the health occupations has been supported which permits, in cooperation with State licensing agencies, advanced placement of students who are upwardly mobile in health careers.

II. Post-Secondary Education

The Vocational Education Amendments of 1968 constituted the real basic thrust needed to develop and expand post-secondary vocational education in Minnesota. Minnesota presently has a total of 32 post-secondary, area vocational-technical schools. Six of these schools have been approved since 1968. In addition expansion has taken place in 16 area vocational-technical schools.

Minnesota has noted a substantial increase in all phases of vocational education especially on the post-secondary level. In 1968 a total of 9,678 students were served in post-secondary vocational education. In 1971 the total served was 15,721. This expansion could not have taken place without the assistance provided by the 1968 Vocational Education Amendments.

One other feature of the development of post-secondary vocational education since 1968 is in the new and emerging program areas. New courses brought about by the demands of industry have been serviced. Special fields such as industrial computers and data processing, advanced fluidics or fluid power design and maintenance; advancement in environmental technology expansions; and developments in aircraft and powerplant technology to include expanded high altitude, jet and turbo activity have been expanded.

New fields of agriculture such as chemical and fertilizer developments have taken place. Demands of the health occupations field in such areas as electro-medical technology and maintenance have occurred. With the expansion of health and old age assistance care programs, the vocational schools have restructured to provide the type of workers needed in the industry.

In summary the box score looks like this:

	1968	1971
Postsecondary area vocational-technical schools	26	32
Postsecondary area vocational-technical school students	9, 678	15, 721
Postsecondary area vocational-technical school teachers	575	780
Postsecondary area vocational-technical school teacher educators	46	72
Postsecondary area vocational-technical school courses of instruction	114	157

III. EDUCATION FOR THE HANDICAPPED AND THE DISADVANTAGED

During 1969–70, 45 Minnesota school districts operated "special needs" vocational education programs for 5,401 handicapped and 10,223 disadvantaged students. These students were served primarily through special classes, but some students participated in regular classes with special supportive services—such as remedial activities and work with teacher aides.

The following represents a sampling of the kinds of programs administered within the state of Minnesota for special needs individuals:

Administration and other Ancillary Personnel.—Programs do need supervision, and we have attempted to keep this expenditure to a minimum. These figures also include counselors. Total allocated: $109,035

Agriculture.—This money was allocated to pay the analysis fee for those adult ag students that were classed as disadvantaged. Total allocated: $9,167

Agriculture.—A great deal of funds were allocated to agriculture departments to upgrade their equipment to better serve the students vocationally. Total allocated: $103,358

Agriculture Guaranteed Loan Plan.—In which we will back the student through a local bank for a loan for an agricultural project. Very little will be expended of the amount allocated. Total allocated: $2,430

Aides, Tutors, and Remedial Teachers.—These individuals have been employed to keep special needs persons current with the rest of the class. Totals include some equipment. Total allocated: $85,203.80

Career Organization.—A number of programs have been piloted that have been geared to junior high students to explore the construction and manufacturing fields. Total allocated: $73,040.22

Consultant Fee.—These are used by various vocational education programs to fill in those gaps in which individual instructors do not feel competent and also where programs need some help from the standpoint of direction. This also included psychological evaluation. Total allocated: $7,410

Drug Counselling.—Our only financial involvement in drug education has been through the Guidance and Occupational Center. We are providing counselors in the evening for drop in clients. All indications are that they have been extremely successful. Cost: $15,430

In-service Training.—A number of schools initiated programs to upgrade their instructors to work more effectively with the handicapped and disadvantaged. We have also used the University to assist in in-service training. Total allocated: $77,063

Institutions.—Monies were provided for state correctional and welfare institutions to implement vocational programs for those students who are institutionalized. Total allocated: $84,960

Pregnant Girls—A number of programs have been started which provide vocational and other types of education for girls that have had to drop out of high school because of pregnancy. Some programs have also tied in an evening school for dropouts. Total indicate both programs, salaries, equipment and supplies. Total allocated: $60,670

Tuition for Handicapped and Disadvantaged students—For those students over 21 who could not pay tuition for attending area vocational schools. In one case one school used handicapped funds to buy vocational education for their students rather than providing themselves.

Handicapped	$279, 201
Disadvantaged	5, 437
Total allocated	284, 548

Vocational Education Programs designed for Disadvantaged.—The monies expended in these areas have a wide range of areas covered and wide range level of preparation. Total allocated: $482,019.16

Vocational Programs Designed for Handicapped.—The monies expended in these areas have a wide range of areas covered and wide range level of preparation. Total allocated: $157,762.40

Work Adjustment Center—This is a unique program located in the Anoka Area Vocational-Technical School. Students are evaluated, given an opportunity to explore occupations, and often channeled into a regular vocational program. Cost: $33,915

Work Experience Programs.—Coop program working in various occupations. Students are in one hour class of work experience. Equipment and half days on the job. Total allocated: $604,090

IV. INNOVATIVE PROGRAMS/CAREER EDUCATION

Two major thrusts have been attempted since the 1968 Amendments were implemented in the state of Minnesota.

The first of these thrusts centers around the development of multi-district programming for vocational education. Two pilot programs were established—one at Blue Earth and one at Roseau—to test the idea and operational aspect to determine its feasibility as well as its ability to deliver services to students. The general idea behind the concept is that districts working together can pursue goals and deliver services that they are not able to as separate entities. These two pilot programs are in their third year of operation and are proving to be an excellent method of delivering services to Minnesota students. In addition to the two pilot projects, the state has generated 12 additional such centers from the information and evaluation of the Roseau/Blue Earth experiment.

The other major direction in innovative programming resulting from the 1968 Amendments is the thrust it provides in career development. Minnesota has not stratified a program or a model for career development as yet, rather it is experimenting with several such models, examining experiments and concepts utilized by other states, and measuring the results with the ultimate goal of developing a model for career development in Minnesota. The basic philosophy behind our effort is to make students more aware of the world of work as they move from a structured educational experience to an unstructured employment experience. Career development as currently being defined will enable students to become more knowledgeable about themselves. It shall provide an exploration and orientation to occupations and ultimately provide each student with entry-level skills for employment or further training beyond high school.

The following is a sampling of projects in career development that are currently funded and operating so as to identify various methods of establishing a delivery system for career development.

On April 1, 1971, the Division of Vocational-Technical Education set aside approximately $151,000 of part "D" funds and made awards to the following eight schools to develop curriculum and to provide in-service training on the elementary and secondary grade levels in respect to work awareness, orientation and exploration occupational activities in elementary and secondary subject matter areas.

The following eight schools who are the recipients of the above grants will have a fifteen month operational period ending June 30, 1972.

School and purpose of project	*Amount State funded*
Osseo: To restructure curriculum around the theme of career education K–12 using video and visual materials	$22,760
Brooklyn Center: To revise curriculum K–12 using community resources as a base	22,900
Roseville (Capitol View Junior High): To prepare K–6 elementary curriculum around work oriented activities with emphasis on elementary teacher in-service training	12,330
Willmar: Develop curriculum K–14 utilizing the community, guidance, and post-secondary vocational school as a primary resource with emphasis on restructuring elementary curriculum and retraining of elementary teachers in positive work concept attitudes	16,790
Owatonna: Restructure elementary K–6 curriculum around career theme	18,439
Red Wing: Revise elementary and secondary curriculum around work oriented activities with emphasis on staff redirection in-service training	10,600
Winona: Prepare career curriculum guides for elementary and secondary teachers utilizing the area vocational-technical school at Winona and the state college as a base resource	12,272
Cloquet: Revise elementary and secondary curriculum by incorporating career education into all subject matter areas	25,088

PART II

It is the opinion of many that while Congress, via the United States Office of Education, requires lengthy and detailed planning documents, these are seldom used by either Congress or the USOE. The Minnesota State Advisory Council for Vocational Education noted this in a certification statement when they said, "The complex format and extreme detail prescribed for the State Plan by the USOE makes the Plan a less than fully effective tool for use in reaching policy decision or in program management."

We believe the entire document can be simplified. If the intent of Congress was to involve the general public in planning vocational education for the state, as indicated by the requirements for public hearings of the Plan, the Plan should be made as simple and understandable as possible.

The temporary carry over arrangement for federal funding should be made a permanent feature. It could eventually provide a continuity in planning not now possible and should most certainly be continued in the case of late appropriations.

The law, as presently written, is too indefinite with respect to the State Advisory Council—its duties, obligations and membership. As an example, I would suggest that a council in size of the National Advisory Council should be the upper limit of state council membership.

In addition, Congress should take care in creating other advisory councils with similar or overlapping responsibilities. The nature of an advisory council is such that a proliferation of councils can defeat the purpose for which it is created.

Since vocational education, career education and remedial training programs, such as Manpower, are all interwoven with respect to services to people, use of facilities and equipment, and construction needs for expanding services, the single advisory council concept assures a knowledge of overall state activity. The proliferation of advisory councils does little to clear up the confusion of the vast number of federal programs, many of which operate outside the constitutionally recognized federal-state relationship. You have recognized this, to some degree, in your co-authorship of H.R. 7429.

Vocational education, many years ago, looked to the USOE for leadership . . . state departments and divisions of vocational education have not looked to them for this leadership recently. There is a pronounced credibility gap between the Office of Education and other agencies. This includes relationships between their counterparts in my state and, I suspect, in other states, as well. The old question, "How can I believe what you say when what you do speaks louder?" has pertinence to this relationship. Statements emanating from the highest offices, beginning at the White House level, through the whole organization are never followed by actions indicating that any credence should be placed on these utterances. This deterioration of confidence has been going on for a decade and is reflected in an apparent low morale within the USOE, and the Bureau of Vocational and Adult Education, in particular.

Constant reorganization within the USOE keeps the state counterparts sufficiently confused to negate any meaningful services which might be available. This situation is not the fault of the "doers" in the office but of the top level management organizers who apparently like to draw organizational squares on a piece of paper and justify their existence by a continual upheaval of the Office and the Bureau.

The question has been asked by some, including Presidential Assistant John D. Ehrlichman, how the conflict between the Department of Labor and HEW can be resolved. Many of us wonder whether there is a conflict. Every communication coming out of HEW appears to indicate that HEW is willing to concede any vocational educational responsibilities it might have to the Department of Labor and is willing to divest itself of these unwanted duties. HEW has never developed a manpower policy. It is a massive organization that has so varied responsibilities that in its efforts to be all things to people, it means nothing to anyone. Important programs are lost in its bureaucratic maze. The Department of Labor, on the other hand, has been blessed with innovative and progressive thinkers who have convinced Congress that even programs of failure deserve to be rewarded. Could this difference be structural, with relationships between the managers in the USOE and the Congress versus the Department of Labor and the Congress?

In my criticism of the HEW and the USOE, my constructive suggestion would be the creation of a Department of Education and Manpower. I don't believe the two can be separated and a service that touches almost 100 percent of all persons in the United States deserves as much attention as commerce, agriculture or some housing development. Human resources are just as important as natural resources.

Vocational appropriations apparently never reach full authorization. Yet the moneys spent on this program by the federal government generate far more dollars of local and state moneys than is required by the legislation. From the standpoint of delivery of services to people, this local, state and federal partnership provides the major delivery system of the nation, yet the federal participation in the system makes the federal government the most minor of the partners. It is difficult to understand the efforts to create a second delivery system when the improvement of the existing system, for the benefit of *all*, makes philosophic and financial sense.

The provisions of the part B set-asides should be examined. Of special concern is the use of these moneys as they relate to construction. Programs cannot be instituted without the proper facilities and many deprived areas cannot afford to construct facilities even if relatively small investment is needed. To what extent do we create disadvantaged people from those otherwise not in this classification if we have an inability to provide programs to meet their needs?

We must change the notion that there is a "level" of education, such as "elementary," "secondary," or "higher education" relating somehow to a stereotyped institutional organization which has not been responsive in the past. We can substitute for it the idea that there is a "basic" period preparing people for initial productivity in society and all that comes after this is "continuing education" in which a person satisfies his needs for the remainder of life.

MISSISSIPPI

State Director—A. P. Fatherree

State of Mississippi,
Department of Education,
Division of Vocational and Technical Education,
Jackson, Miss., May 12, 1971.

Hon. Roman C. Pucinski,
Chairman, General Subcommittee on Education, U.S. House of Representatives, Rayburn House Office Building, Washington, D.C.

Dear Mr. Pucinski: I am enclosing some brief highlights on the vocational education program in Mississippi. This is very brief. Many pages could be written about what is taking place in Mississippi in education. There is almost a revolution in the philosophy of education.

We appreciate your interest and the leadership you are giving in the Congress today in support of vocational or career education. This is a must if we are to meet the needs of the masses of our boys and girls.

If there should be any further information that you need, please feel free to call upon us.

Sincerely yours,

A. P. Fatherree, *Director.*

Enclosure.

Highlights on Vocational Education in Mississippi, 1970–71

Vocational education has made great progress since enactment of the 1963 Vocational Act. Twenty-three post secondary, 33 secondary and three correctional institution vocational programs are currently in operation, under construction, or have been approved for construction. The total amount of money, including federal, state and local money spent, and /or allocated for construction of the area schools is in excess of $26,000,000. About 50 more of these comprehensive programs are needed on the secondary level to meet the needs of vocational education in Mississippi. With the present rate of expansion, this need can be met within the next 5 or 6 years. Area vocational schools now in operation have been fully equipped at a cost of over $13,000,000 to the State Vocational Board.

Placement of students completing vocational education programs is phenomenal. During 1970, 96 perecnt of all students completing secondary programs, and who were available, were placed in occupations or closely related occupations, for which they were trained; and 97.4 percent of all post secondary students completing training and who were available, were placed in occupations or closely related occupations, for which they were trained.

Vocational education is not an expense, it is an investment that brings big dividends. We cite one class of disadvantaged students who completed a welding course in one of Mississippi's programs. Two major industries competed for the employment of the entire class. Fifteen of the 16 were employed by one of the industries at a wage of more than $3.00 per hour.

Presently, only 23 percent of secondary students are enrolled in vocational education. Forty-six percent of the secondary students enrolled in vocational educational pursue further vocational education training at the post secondary level.

The secondary school holding power is improving very slowly. The student dropout rate between entering the second grade and entering the first year of college varies from 55 percent in Hinds County to 89 percent in Tunica County. The average dropout rate for Mississippi is slightly under 80 percent.

Labor surveys indicate that less than 20 percent of all the jobs in the United States requires a college education. This further emphasizes the need for increasing vocational education to where at least 80 percent of our students should pursue a vocational education curriculum.

Even though much progress has been made in Mississippi during the past seven years, we are now training only about 32 percent of our needs. It is estimated that there is a need for 48,337 trained workers in 1971 and our vocational programs will turn out only 14,300 new workers from day school training and 4301 adult preparatory students. Supplementary training for upgrading was given to 33,524 adults.

Other programs that have been added are for the disadvantaged with 210 teachers and an enrollment of 4,098. Fifty-four teachers with a student enrollment of 1134 are financed this year from 102b funds. Sixty-one teachers taught handicapped students with an enrollment of 2035.

Part G Coop now has 53 teachers with a student enrollment of 1288. Occupational orientation is offered in many of our schools with an equivalent of 99 full-time teachers, 36 full-time guidance counselors are employed. The guidance student ratio is about 1 to 350. We are gradually narrowing this ratio in order to better serve guidance needs.

Part F Disadvantaged accounted for 26 teachers with a student enrollment of 802.

A county-wide exemplary program has been in progress for one year in Jones County. This is a career centered program and has made great progress during this first year of a planned three year program. Twenty-eight full-time teachers and coordinators are employed in this program.

During the past seven years, the state appropriation for vocational education has increased 476 percent. For fiscal 1971, the state appropriation was $7,800,000. For fiscal 1972, the appropriation is $9,840,000, an increase of 26% over the previous year. Much of the increase will be spent for increase of teacher salaries and expansion in area vocational schools for equipment and new occupations in these schools.

It is felt that about 10 more area schools can be approved next year if a reasonable increase of federal funds are made available.

For fiscal 1971–72, four additional career centered programs will be established in comprehensive secondary vocational schools. Part of the funds for these programs will come from section C of the Vocational Act.

Vocational education is rapidly becoming more in demand by school officials as well as laymen. They are becoming increasingly aware that a great majority of the students must be trained for occupations that eixst, rather than continue to try to offer a college preparatory course to all students. With more money being made available from year to year, we feel that vocational education will soon cover the state so all students will have the opportunity to train for any occupation which they may choose.

There is almost what might be called a revolution taking place in the philosophy of education in Mississippi. School people, parents and students, along with political leaders realize that something must be done and done quickly to enrich the curriculum in the schools of our State and to adjust it to the needs of all of the students. This does not mean a weakening of the traditional college preparatory curriculum. In fact, the system will improve this curriculum. The goal is to provide the kinds of education with a high quality that will prepare students to make a meaningful selection of an occupation based upon their interests and abilities and to prepare them for the world of work or for further education. This is indicated by the interest, requests, and demands that are being made today; and these demands are increasing at a rapid rate.

The need today is for full Federal funding of the Vocational Education Amendments of 1968 without interruption in the administration of the program. The State and local communities are making greatly increased contributions and more federal funds will have to be made available to meet the needs.

Since the passing of the 1968 Amendments to the 1963 Vocational Education Act, considerable progress has been made in all phases of vocational and technical education in Mississippi. The enrollments in post secondary vocational education programs in Fiscal Year 1970 increased 17 percent over 1969 and 48 percent over 1968. In 1968 the total post secondary vocational education enrollment was 4,591; in 1969 it was 5,819; and in 1970 it was 6,803. These post secondary students were enrolled in 20 junior college attendance centers and one center at the State Prison at Parchman. In these 21 post secondary attendance centers training was offered in 57 different occupations.

All of the facilities for post secondary vocational and technical education are relatively new in that they have been constructed since the passing of the 1963 Vocational Education Act.

In addition to the post secondary training that was given to the regular students in area schools in 1968, there were 11,578 adults who received training. In 1969 in these same schools 15,477 adults received training, and in 1970, 15,524 adults received training.

From a beginning in 1968 of an enrollment of 1,832 disadvantaged people, then called special needs, the enrollment has increased to over 6,000 for the current year 1971.

The disadvantaged and handicapped were reported in 1968 and 1969 as special needs students. In 1970 they were reported as disadvantaged and handicapped. The special needs enrollment in 1968 was 1,832; in 1969 it was 2,393. In 1970 there was an enrollment of 4,897 disadvantaged and 2,110 handicapped people. To further meet the needs of these people an in-service and preservice teacher education program has been put into operation. With more and better trained teachers it will be possible to offer a high quality instructional program to meet the needs of disadvantaged and handicapped people.

All instruction has been adapted to the needs of the disadvantaged and is designed to overcome the particular handicap they possess which is usually a deficiency in one or more of the academic disciplines. For example, twenty-seven people were recruited from the ranks of the disadvantaged as teachers. These teachers were brought into one of the colleges and given a concentrated course or workshop in teaching methods and sent back into the communities from which they came to teach people of their own kind. These teachers were supervised and given assistance by qualified vocational teachers in the local attendance centers. The success of these teachers has been very gratifying.

One class of 16 dropout disadvantaged boys completed a course in welding. At the end of this class two large industries were bidding for their services. Fifteen of these students were employed by one firm at a salary of more than $3.00 per hour.

For the current year, 1971, monies budgeted for vocational training for the disadvantaged are approximately $1,162,000. This is $116,000 more than the set-aside monies for disadvantaged. Training is being given by 251 instructors in 90 attendance centers throughout the State.

Vocational training for the handicapped has an enrollment this year of approximately 2,200 people. Vocational training for the handicapped has been slow beacuse of screening and identification of these people and also a lack of facilities.

New facilities are being constructed at Itawamba Junior College Vocational and Technical Center, Tupelo, Mississippi, and Jones County Junior College Vocational and Technical Center, Ellisville, Mississippi, with monies other than federal vocational education funds. One of these facilities will be ready for occupancy September 1, 1971. The other will be ready for occupancy September 1, 1972, or earlier. These programs in the junior colleges possess outstanding potential to develop into a comprehensive vocational education program for the handicapped. Approximately $400,000 has been budgeted for vocational training for the handicapped in the current year 1971.

A close working relationship has existed between vocational education, vocational rehabilitation, and special education in the planning of vocational education for the handicapped. This cooperation will continue in the training of handicapped people.

Because of funds, teaching personnel, and facilities, meeting the needs of the disadvantaged and handicapped people in vocational education has been difficult. However, taking into consideration the above-mentioned problems, it is felt that good progress has been made in meeting these needs. It is realized that not all of these needs have been met, but there has been a steady increase in enrollment since the beginning of Fiscal Year 1968.

Since the passing of the 1968 Amendments to the 1963 Vocational Education Act, the main change in the secondary vocational education program has come about through area vocational schools. At the present time there are 27 area secondary vocational schools which are in operation or will be in operation in the near future. Funds from every available source have been used to construct the buildings for these secondary area schools, and they have been equipped out of vocational education funds. Part of the operation costs of the area schools is being paid out of vocational education funds.

Because of the fact that there are so many small schools in Mississippi, the area school approach is the only way to offer a comprehensive vocational education program to all boys, girls, and adults of the State. This change from a single school approach to the area school program has not increased the overall enrollment in vocational education as yet; but the offerings that have been made available for students are much broader, and the quality of instruction is much improved. As local funds are available and as state and federal funds become available, more of these secondary area schools will be constructed. As a part of the existing school systems, all of these area schools were started in new buildings with new equipment.

Despite the lack of continuous funding of research for vocational education, much progress has been made in Mississippi's research effort. The research activities were to have been greatly increased under the Vocational Amendments of 1968, but sporadic funding would not allow for the training and employing of additional personnel to make a concerted research effort in the State.

The Mississippi Research Coordinating Unit for Vocational-Technical Education has rendered service on numerous planning and implementation projects for the State Division of Vocational Education, local school districts, community colleges, colleges and universities, and the Mississippi Economic Council.

Research efforts in the State have centered around the spectrum of occupational education and manpower development. The research efforts have been project-oriented while scanning the broad horizon of vocational-technical education in Mississippi.

Efforts have been made to stimulate persons other than State Division and RCU personnel in Mississippi to conduct research in vocational-technical education. A number of workshops, seminars, and meetings were held to stimulate this effort. A few examples of research projects resulting from this effort are as follows:

1. *Five Pilot Projects in Wage Earning in Home Economics in Mississippi.*—These projects gave direction for planning future programs in wage earning occupations for secondary school programs and programs for dropouts and adults.

2. *Self-Appraisal of Vocational-Technical Education in Mississippi by Local School Committees and Instructors.*—This project supplied baseline data on statewide strengths and weaknesses of vocational-technical programs. Results were utilized in planning and implementing supervision and teacher training activities to correct observed weaknesses.

3. *Development and Use of Subject Matter Materials for Vocational Education in Agriculture.*—Results were utilized in establishing priorities and improving utilization of curriculum materials developed.

4. *The Occupational Aspirations of Rural and Urban Low-Income Negro Heads of Households.*—Information was utilized in the planning and implementation of vocational-technical programs to fit the needs of areas with high concentrations of low-income minority groups.

5. *Social Origins and Career Patterns of Vocational Educators: A Study in Occupational Mobility.*—Information was utilized in recruitment of prospective vocational-technical teachers and in planning teacher training programs.

Time and effort have gone into the coordination of vocational-technical education research in the State to prevent unnecessary overlapping and duplication. Many plans that have been made, such as computerized data storage retrieval system for vocational-technical information, have been deferred because of the manner of research funding since the Vocational Amendments of 1968.

Research personnel (both in the State Division of Vocational Education and in the Research Coordinating Unit) have assisted local schools in developing local vocational education plans, developing curriculums, evaluations, as well as other research-related activities. in addition, these same personnel have carried out research projects. Some examples of the types of projects carried out under the 1968 Amendments are as follows:

1. *Important Factors Concerning Human Resources in Mississippi.*—This research project analyzed the state's human resources and was utilized in local and state planning activities.

2. *Employment Opportunities and Competency Needs in Nonfarm Agricultural Occupations in Mississippi.*—Results of this project were utilized in program planning and expansion, curriculum development, supervision and administration.

3. *Vocational Education Implications of High School Dropouts in a Mississippi Community.*—Results of this study had special implications upon the planning and developing of programs for disadvantaged students as well as regular vocational programs.

4. *Delta Manpower Survey.*—This project was a cooperative venture among the Mississippi Employment Security Commission the State Division of Vocational-Technical Education, and the Research Coordinating Unit. Results of this project were utilized in planning and implementing vocational programs in areas of high unemployment by minority groups.

5. *Educational Aspirations, Expectations, and Abilities of Rural Male High School Seniors in Mississippi.*—Information obtained was utilized in planning and implementation of programs on the secondary and post secondary levels.

6. *Mississippi Evaluation Systems Project in Occupational Education.*—A system for local evaluation and redirection of vocational-technical programs was field-tested in three secondary and one post secondary system. Information is being utilized by other systems in the evaluation and redirection of their vocational-technical programs.

7. *Vocational Education Programs for Special Needs Students in Secondary Schools in Mississippi.*—Information obtained in this project was utilized in improving programs for disadvantaged students through curriculum redirection, planning, etc.

8. *Socioeconomic Characteristics of the Mississippi Choctaw Indians.*—Information from this project is being utilized in the planning and implementing of vocational programs for this minority group.

9. *Careers of Rural Male High School Seniors in Mississippi: A Study of Occupational Interests, Aspirations, and Expectations.*—Results are being utilized in planning and redirecting vocational-technical programs in the State.

10. *Career-Centered Education in Comprehensive Schools in Mississippi.*—Innovative project is just getting under way which involves students in occupational education, K–14.

A continuous effort has been maintained in disseminating research information throughout the State. Information of importance is disseminated in a variety of ways: (a) by personal contact, (b) by direct correspondence, (c) by distribution of publications, circulars, and newsletters, (d) by oral presentation at workshops, seminars, meetings, etc., and (e) by varied news media.

POSTSECONDARY ENROLLMENTS IN VOCATIONAL EDUCATION

Service	1968	1969 Full time	1969 Part time	1970
Agriculture	94	112	0	117
Distribution	230	140	0	318
Health	676	838	0	997
Useful home economics	0	0	0	0
Gainful home economics	0	14	0	51
Office	1,109	1,664	117	1,434
Technical	896	897	0	924
Trades and industry	1,586	2,036	1	2,962
Total	4,591	5,701	118	6,803
Grand total (unduplicated)	4,591	5,819		6,803

DISADVANTAGED AND HANDICAPPED ENROLLMENTS IN VOCATIONAL EDUCATION

Service	Special needs 1968	Special needs 1969	1970 Disadvantaged	1970 Handicapped
Agriculture	160 (306)	297 (173)	397	0
Distribution	0	23	111	85
Health	42 (153)	96 (262)	609	0
Useful home economics	0	0	829	0
Gainful home economics	313	403	288	0
Office	0	65	179	54
Technical	0	0	0	0
Trades and industry	1,317 (15)	1,509 (109)	2,484	1,971
Total	1,832 (474)	2,393 (544)	4,897	2,110

MISSOURI

State Director—B. W. Robinson

Statement of B. W. Robinson, State Director, Vocational and Technical Education, State of Missouri

I am pleased to have the opportunity to present to this Committee an appraisal of the effects of the Vocational Amendments of 1968 on the manpower delivery system in Missouri. This information is submitted at the request of the Honorable Roman C. Pucinski, Chairman, General Subcommittee on Education.

The growth and expansion of vocational and technical education has been an interesting one. There have been three major thrusts at expansion and each of these has come at a time of crisis in our nation's history. Each of the three periods of growth has been initiated by action of the U.S. Congress. In 1917, the enactment of the Smith-Hughes Act was a direct result of a deep concern on America's involvement in World War I and the feeding of the American and allied population.

The second period of growth came during the decades of the 1930's and 40's. It was at a time that the Nation was emerging from a depression economy and moving toward a war economy. Here again vocational education served a mission which the Congress felt it could do.

The third major period of expansion began in the decade of the 1960's. The two significant phases of legislation were the Vocational Act of 1963, and the Vocational Amendments of 1968. The Congress recognized the critical labor problems in America and passed these major pieces of legislation so that we might match men with jobs and jobs with men. We raised the image of vocational education and made provision for every citizen to move into the labor market gainfully employed.

We recognize and pay tribute to the leadership of the Federal Congress in providing for vocational education in Missouri. Our State has followed with additional support from State funds for vocational program efforts. In every case our State has reacted affirmatively to the leadership of the Congress. As an example, in fiscal year 1965, the total State appropration for vocational and technical education was approximately $250,000. In FY 1971, State funds in the amount of $6,237,285 are available for distribution to local education agencies. The State too has contributed to the improving of the image of vocational education in making it available to meet the needs of all.

As these two agencies of Government have responded and reacted to the National concerns so have the local educational units. The rate of expenditures of the local education agencies has increased each year since 1965. Today we anticipate that Federal expenditures would approximate 10% of the total expenditure for vocational instruction in our State. It appears that we are rapidly reaching the saturation point of the abilities of local units to add to their support of this important program. This should be a concern of the members of Congress.

One of the significant provisions of the Amendments of 1968 were the provisions for the National Advisory Council for Vocational Education and the State Advisory Councils. The relationship of the State Advisory Council for Vocational Education in Missouri and the State Department of Education has been a very pleasant and profitable one. For about the first year of operation the State Director of Vocational Education served as an unofficial executive of the State Council. This provided for a smooth functioning of the Council-Department activities. The State Advisory Council has employed an Executive Secretary and the State Director of Vocational Education and other staff members are available to the Council at each meeting for consultation. We believe the fine contributions of the Council have been predicated on this cooperative relationship.

In the first evaluation report submitted by the Council in October of 1970, certain goals were suggested. The Department of Education has made these goals a part of its program for work. Most have been accomplished. The Council called for an improved evaluation process, and this has been developed. Refinement has been made in procedures to more clearly identify program planning with labor market needs. The State is beginning a study for development of a procedure to obtain these data on a Statewide basis.

The Council commended the Department for its cooperative approach to the CAMPS Organization and stressed continued and expanded activities. This has been done. They also commended the Department for the publication, *Vocational-Technical Schools and Programs in Missouri*. They asked that this be updated each year. This too has been done. Commendation was made for the efforts to improve the image of vocational and technical education in Missouri. The Department is continuing activities to improve this image.

The Council noted that progress had been made in the State in meeting the major priorities and program emphases of the Vocational Education Amendments of 1968. The Council recommended that program administrators and teachers must be encouraged to adopt that philosophy and intent of the new legislation. A consistent and planned program is being utilized to incorporate this philosophy in program planning and execution. Recommendations were made by the Council on the use of more current data particularly emphasizing the use of 1970 census data. In preparing the State Plan this year it was found that many sources of needed data were not yet using the last census information. The Council recognized the need to encourage smaller school districts to participate in area school programs. This has been and continues to be an area of concern of the State staff. Our efforts are being rewarded with an annual increase each year of out-of-district students enrolling in area vocational programs.

The Council expressed concern with the vocational guidance function in the schools. Several programs are in operation to make counselors more acutely aware of the world of work. Provision has been made for placement of vocational trained counselors in area vocational schools, with placement a primary function. Institutes are being conducted in three areas of the State in which counselors spend half of each day in industrial and business visitation; the other half of the summer program is spent in studying related information. Members of the guidance staff have been given definite functions in enrollment, follow-up, and evaluation.

The letter from the Chairman asked us to comment on innovative ideas in career education. It is difficult to present innovative ideas about career education because we often do not know what ideas and concepts have begun to come to the surface in our Nation. We know that career development needs of people have never been more crucial than they have in recent times. We have been attacking our human needs problems related to career development and training in many ways in the last 20 years. It is also clearly evident that all these attacks have had little impact on the occupational problems faced by our people.

Characteristically, the programs that have been devised have attacked symptoms rather than attacking the heart of our human problems. These programs are designed for people who have been identified as deviating in some way. We have not had career development guidance and counseling and career education as a planned part of each youngster's regular educational program starting in kindergarten. We would not want to do away with the occupational programs of training which are attacking the symptoms and are currently being carried on. These people for which these programs are being provided are already here and in need of these training opportunities. However, concurrent to these ongoing programs we need to develop a program of career education and career development guidance and counseling that doesn't wait for the human crises, but attacks the heart of the problem before it becomes a crisis.

One of our educational goals in America is that of "preparation for living" while at the same time we have generally rejected the goal of "preparation for making a living". We say "rejected" because we continuously provide far greater monetary resources for higher education than we do for vocational skills training or education for less than a baccalaureate degree. Even our administrators and teachers provide a school program at the elementary and secondary levels to enable the youth to ready themselves for education in an institution of higher education. Said in another way, *we educate people for more education.*

What causes this to happen? It seems that our society worships at the shrine of more education. Employment, salary differentials, and then advancement on the job are influenced in large part by the level of college degree held by the individual rather than his production or competency. This fact is very true for professionals in education. Our certification procedures are even based on this premise. If educational degree level attained by an individual does determine these things then it is small wonder that one of our prime goals, "preparation for living", becomes that of earning a degree from an institution of higher education.

What might we do? We believe that there are several approaches. These approaches represent an attack on several different fronts. The following are several approaches not necessarily in rank order:

1. Acquaint elementary and secondary teachers with the world of work by establishing a program of work experiences for them during the summer months.

2. Provide, in depth, in-service education for college professors to enable them to change the teacher training programs of those who are going to be elementary and secondary school teachers and counselors.

3. Provide summer work experiences, simulated and actual, for elementary and secondary students, not only during the regular academic year but during the summer months as well.

4. Provide career development guidance and counseling for all the students 12 months a year during the period of simulated and actual work experience as well as during the academic time of studies.

5. Establish action oriented guidance programs based upon measurable objectives and activities with evaluative procedures determining the program. The base line data or local individual needs would be the basis for writing the objectives and activities.

6. Establish a procedure whereby minimally employed people or people whose earnings are below the poverty level can be released from work at least once a week with pay if they go to a school for career counseling and career education. This could be an ungraded school concept.

   (a) Have programs available for "slotting-in" individuals and exiting them at different times.

   (b) Secondary students could also be bridging the gap between education and the job. They might take 5, 6, 7, or more years to complete the high school graduation requirement. Then they could continue in adult education programs with continued career development guidance and counseling and career education.

7. Numbers 5 and 6 above would require the provisions of massive support for effective programs of individual and occupational assessment as an essential basis for programs of career education and career development. The actual or simulated work experiences are suggested to test both aptitude and interest as a part of occupational exploration. Follow-up studies should also be funded as a part of this data base.

In summary.—At the elementary school level the career education and career development guidance and counseling would emphasize helping students acquire positive attitudes towards themselves as prospective workers, towards work, and towards all levels of occupations found in our society. It would provide for actual or simulated work experiences to introduce and acquaint youngsters with both tools and machines, as an essential part of the curriculum. And, finally, it would provide for acquaintances to be developed between elementary children and actual workers in our society.

At the high school level career implications of all courses should be emphasized. A comprehensive program of occupational education should be made available to every high school student. For some of the students this study would be used to continue career exploration while for others this study would be for the explicit purpose of developing basic employment skills. For some the training would lead to additional training of a post-secondary vocational nature. This study should be done in the regular high school setting and/or in the area vocational school setting. In order for this concept to be economically feasible it will be necessary to utilize the job cluster approach to much of the elementary and secondary training.

At the post-secondary level the training would be specifically geared to employment. Guidance counseling and placement as well as follow-up of the student is essential. At this level job training and placement would be emphasized and exploration would be minimized.

Finally, the terms "career education" and "career development guidance and counseling" are two essential ingredients—like the song "Love and Marriage", when it says, "you can't have one without the other". Together they mean the formalized experiences of the individual leading to his choice of, preparation for, entry into, and progress in, the world of work throughout his work life. One of the things that has helped make our country great has been freedom of choice of the individual. We must continue this guarantee but we must take definite steps to enable the individual to make intelligent decisions as he exercises this freedom.

The career education and career development guidance and counseling concept is most apropos at this time when we are faced with high unemployment, youth unrest, increasing complexities of entry into the work world, and the continued false concept of our society that everyone should get a college education when this remains an absolute impossibility.

Approximately 80% of our youth and adults continue to fall in the category of those who cannot attain a college degree. This would be legislation enacted to serve a large portion of our society. I know of no other legislative enactment that could more nearly meet our urgent needs than legislation designed to enable all our people to be provided education to prepare them for making a living.

The career education and career development concept presented here is stated in general statements. If it should be our desire, after hearing from all the State Directors of Vocational Education, for us to be more explicit, we can supply you with additional input.

The Vocational Act of 1963 made provision for the creation of a concept of area vocational education. This philosophy was continued in the Amendments of 1968. In Missouri we think this phase of the Act has been a real landmark of progress for Vocational Education. Few things have been as meaningful and certainly the response after an early period of uneasiness has been tremendous.

On February 5, 1965, proposals submitted by three school districts to be designated as Area Vocational Schools were approved by the State Board of Education. This was the beginning of the development of a network of area vocational schools in Missouri. To date forty-four districts have been approved for this designation. Please note Attachment A for the location of the designated districts. The area schools are designated by the State Board of Education on the basis of a proposal submitted by the local education agency. The proposal must have the support and assurance of cooperation by other local education agencies desiring to participate. An agreement must be included to provide experiences for secondary, post-secondary, and adult and special needs groups.

Thirty-six of the designated schools are in operation. During the past school year a total of 133 school districts participated in the area school program.

In striving to meet the needs of students a concentrated effort to provide vocational facilities has been undertaken.

Surely this construction program has done more to raise the image of this program than any single thing that we have done. We have taken vocational instruction from abandoned garages, basements, and other areas not useable by the academic program. We are now housing the program in facilities designed for vocational instruction and compatible with other buildings of the school system. We are enclosing a publication of the Division of Commerce and Industrial Development in Missouri which gives another point of view of our area school program.

Local area school districts have displayed much enthusiasm for the development of vocational programs. This enthusiasm is reflected in the financial participation. It is significant that local districts have provided $16,881,992 or 50.58% of the total funds expended for this purpose. The Vocational Education Act of 1963 and the Vocational Education Amnedments of 1968 are responsible for providing 37.16% of the funds expended to date. These Acts provided the leadership and financial support needed to get this dynamic program started. We have also received supplemental financial support from the Ozarks Regional Commission which can provide financial assistance in forty-four counties of Missouri.

Your letter also asks for suggestions on improving the administration of the Manpower Training Programs. We know this is very comprehensive, but we do wish to commend the present operation of the Manpower Development and Training Act. We have had excellent leadership at the National level and splendid cooperation of the Missouri Division of Employment Security and the State Department of Education in Missouri in carrying forward the provisions of this Act. We recognize this is a retraining program, but one which will continue to be needed to meet an important challenge. We would advise the Congress to maintain the essential provisions of this legislation in any restructuring of the manpower delivery system.

The Vocational Division of the Department of Education in Missouri cooperates with enthusiasm in the CAMPS program. We think the philosophy is excellent and regret that some agencies do not participate as actively as they should.

At various times measures are introduced to alter manpower legislation. We hope that the Congress will always insist that the agency in the State designated for vocational training will always be specified in the Acts to be responsible for vocational training. The success of the MDTA Program in our State proves we can work cooperatively together. We feel the Vocational Division of the Department of Education has the expertise to successfully pursue the conduct of vocational training programs.

Another far reaching effect of the Amendments of 1968 has been the thrust toward meeting the needs of the disadvantaged and the handicapped. The Amendments of 1968 specifically assigned the responsibility of identification of disadvantaged and handicapped persons to the counselors of the school districts. Workshops have been held throughout the State for the purpose of informing counselors of this added responsibility. Counselors are very much involved in vocational education in Missouri because of this direct assignment from the 1968 Vocational Education Amendments. Evidence of positive input of counselors to vocational education at the local school level is already very much in evidence.

Missouri has traditionally served the vocational needs of disadvantaged secondary, post-secondary, and adult persons. These persons have been enrolled in the regular vocational education programs which were designed to serve persons who did not have the disadvantaged handicaps. In some few instances the regular vocational education programs may have been modified to some extent in an attempt to meet the specific needs of the disadvantaged persons. Basically, the disadvantaged persons have had to measure up to and conform to the standards of the occupation as taught in the traditional vocational classes.

The set aside funds, as mandated by the 1968 Amendments to the Vocational Education Act of 1963, have provided funds to support vocational education for persons who are unable to succeed in the traditional vocational education programs. The set aside funds are to enable disadvantaged persons to achieve vocational education objectives that would otherwise be beyond reach as a result of their handicapping condition.

Programs and services provided for disadvantaged persons may take the form of special educational services which are supplementary to regular programs, modification of regular programs, and special vocational education programs designed only for disadvantaged persons.

Special educational services which are supplementary to regular programs are initiated wherever possible, as a first priority, to assist persons to succeed in regular programs. The special educational services shall take the form of:

1. Identification of all disadvantaged persons in a community with first priority given to secondary school students;
2. Orientation to occupations which is above and beyond the traditional guidance approach to occupations;
3. Concerted effort for counseling, testing, and directing persons into available vocational programs within their community;
4. Attitudinal readiness instruction and follow-up contacts during training which will support disadvantaged persons in a regular vocational program; and
5. Special transportation services to vocational programs which are considerably removed from the regular school setting.

Modification of regular vocational programs is considered as the second priority in meeting the needs of disadvantaged persons. Units of regular programs can be selected and taught as specialty occupations. Such a unit is often times within reach of an individual especially when the instruction is supported by closer supervision and more extensive use of instructional aids.

Special vocational education programs which are designed only for disadvantaged persons are used as a third priority means of implementation.

Programs are needed to serve persons of all disadvantaged categories such as academically disadvantaged; economically deprived; environmentally deprived; neglected youth; school dropouts; unemployed; and behavioral deviates who have committed crimes against society. Persons who are confined in institutions by the State Board of Training Schools and the State Department of Corrections are logical target populations which can be served by 102(b) funds.

Considerable effort and expenditure of funds is being used to implement programs which are designed specifically for disadvantaged persons.

There are thirty-nine disadvantaged programs which are continuing and expanding. An additional eleven new programs will be organized during FY 1972. The total of these fifty programs is composed of twenty-two secondary, twenty-five post-secondary, and three adult disadvantaged programs. Therefore, the set aside funds have implemented fifty continuing, expanding, and new disadvantaged programs. These fifty recently initiated programs are providing vocational education for 2,833 persons during FY 1972.

Projections for FY 1976 indicate there are to be ten secondary and fifty-six post-secondary disadvantaged programs with an enrollment of 1,584 and 1,936 persons respectively. The combined projected FY 1976 disadvantaged enrollment is 3,520 persons.

The need for additional funds would seem to be readily identified.

Handicapped persons in Missouri have considerable need for vocational education. There is need to serve these persons at the secondary, post-secondary, and adult levels. Prior to the 1968 Amendments of the Vocational Education Act of 1963, there was little opportunity for handicapped persons to avail themselves of this training. Programs are needed to serve persons of all handicapped categories such as; educationally mentally retarded and trainable, emotionally distracting, hearing impaired, speech impaired, sight impaired, physically handicapped, and persons who have specific learning disabilities.

An effort is being made to serve handicapped persons on as comprehensive a scale as is possible. A comprehensive effort entails identifying and cooperating with community agencies, vocational rehabilitation agencies, and the Division of Vocational Rehabilitation of the State Department of Education. Additionally, sections of the Department of Education which shall be involved include Special Education, Adult Basic Education, State Schools for Trainable Retarded Children, Extended Employment Sheltered Workshop, as well as Titles 89–313 and 90–230 of the Elementary and Secondary Education Act. The State Division of Mental Health is extensively involved in implementing vocational programs for the trainable, educationally mentally retarded, and emotionally distracting.

Some handicapped individuals have been served previously by regular vocational programs. A census of handicapped persons is required of local school districts. These data have been used at the local level to identify the large number of persons who are not being given the opportunity of participating in vocational education programs. There is considerable need to initiate vocational programs for special education students within Missouri's local school districts. The State Division of Mental Health has indicated need for additional vocational programs.

There are ten secondary handicapped programs which are continuing and expanding. An additional twelve new programs shall be implemented during FY 1972 to serve secondary handicapped persons. Therefore, the set aside moneys have implemented twenty-two continuing, expanding, and new handicapped programs for secondary school aged persons. These twenty-two recently initiated programs are providing vocational education for 569 persons during FY 1972.

Projections for FY 1976 indicate there are to be thirty-eight secondary handicapped programs with a projected enrollment of 1,129 persons. There is considerable evidence for developing handicapped programs for post-secondary and adult persons.

The need for additional funds would seem to be readily identified.

The critical area of fiscal support for vocational programs services and activities has received a considerable amount of attention from State level program planners since the passage of the Vocational Amendments of 1968. The State Plan outlines a procedure for the distribution of funds to local educational agencies which gives consideration to the present level of local expenditures and at the same time incorporates a non-uniform reimbursement to further supplement these expenditures.

Since local agencies which conduct vocational programs develop their operational budgets a minimum of six months ahead of the fiscal year in which they are to receive funds, it is considered to be extremely important that local administrators of on-going vocational programs be given information relative to the continuance or discontinuance of program support. Our experience has been that the uncertainty of fiscal support results in a stifling of local program development. To counteract this and to provide for the orderly growth of vocational programs and services in local communities, Missouri has developed a method of reimbursement for Part B vocational instruction to include a minimum foundation grant and a non-uniform reimbursement formula. Foundation grants, representing a minimum reimbursement, were issued to local educational agencies which had conducted programs to serve groups of people identified in the Act on the following basis:

1. Comprehensive High Schools—$200 per teacher month employed,
2. Area Vocational Schools—50% of instructional salaries,
3. Community or Junior Colleges—$120 per credit hour of approved credit,
4. Disadvantaged and Handicapped—100% of program costs (initiated after April, 1970).

Additional fiscal support for each local agency conducting vocational programs was accomplished by applying the non-uniform reimbursement formula to fiscal 1971 funds. The Missouri formula requires a composite score for each school district based on a rating of the following factors:

1. Manpower Needs and Opportunities
2. Vocational Education Needs
3. Relative Ability to Pay
4. Excess Costs

Using a rating scale of 0 to 12, each school district is rated on each factor from data sources from the Department of Education files together with information supplied by other State agencies. The composite rating for each school district is derived from a mean rating of the four factors and placed on a scale of 0 to 12. Part B monies available for distribution were awarded to school districts according to the scale of values established by factors enumerated in the non-uniform reimbursement formula.

At present, State Department personnel are re-evaluating the formula in an effort to refine data collection procedures in such a way to give added weighting to the four basic factors. It is our hope that data which has been secured from other State agencies can, in future years, provide greater specificity when dealing with such sub-factors under the headings of Vocational Education Needs and Manpower Needs and Opportunities. If this is accomplished, it can be expected that these indices will result in a finer degree of discrimination when awarding funds according to the non-uniform reimbursement formula.

It should be noted that Part B of the Act requires states to distribute to local agencies from their base allocation a minimum of 15 percent to post-secondary programs, 15 percent for disadvantaged programs and 10 percent for handicapped programs. Missouri has slightly exceeded these amounts for post-secondary program operations and has more than met the distribution requirements for disadvantaged and handicapped students through a State policy of 100 percent reimbursement rates for these programs.

The balance of Part B funds, which amounts to 60 percent of the total allocation, is distributed to local educational agencies according to the plan by applying the basic foundation grant and the non-uniform reimbursement to these Part B funds.

There has been a marked increase in the expansion and improvement of vocational opportunities for post-secondary students in Missouri, much of which can be attributed to funds provided by the Vocational Education Amendments of 1968. New programs have been implemented in the larger comprehensive districts, area vocational schools, community colleges, a technical college, and four-year institutions.

In 1961, a group of Missouri leaders representing labor, industry, agriculture, education, and other segments of the population joined forces to sponsor legislation providing for a state-wide system of public junior colleges. At the time the law was passed, there were six public junior colleges in Missouri—all operated by high school districts and supported by local taxes—serving approximately 6,800 students. They offered primarily traditional transfer programs, with little or no vocational-technical programs.

Two-year junior, or community, colleges are the fastest growing institutions of public higher education in Missouri. Currently enrolling 20 percent of all students attending college within the State, they offer more varied programs for a greater variety of students than any other segment of higher education.

Today a total of 12 districts are operating comprehensive public junior colleges. Sixteen community colleges are operated by the junior college districts. Six of them are located in the two large metropolitan areas with three in Kansas City, and three in St. Louis-St. Louis County. The other ten institutions are located in communities throughout Missouri.

Enrollment in the junior colleges has doubled and redoubled since the time the junior college legislation was passed. This year 37,000 Missourians are taking full and part-time programs at the junior colleges. The enrollment increases have averaged approximately twenty percent each year.

In the fall of 1968, a total of 5,228 junior college students enrolled in vocational-technical programs. This school year 7,192 were reported which represents a 37.5 percent increase in vocational-technical enrollments for the three-year period.

All indications are that the current surge in Missouri junior college enrollment will continue throughout the decade of the 1970's. Projections for the 1979–80 school year place a total enrollment at 78,700. Currently 21.1 percent of the total enrollment is vocational-technical enrollees. Applying this percentage to the projected enrollment would mean 16,606 vocational-technical students in 1979–80.

Funds derived from the Vocational Education Amendments of 1968 have been instrumental in this phenomenal growth pattern. It is apparent that local and State support no longer will sustain either the immediate need or promise of these institutions. A reliable Federal commitment geared to carefully measured needs is essential if they are to establish and maintain adequate vocational-technical programs.

Post-secondary enrollments in the larger comprehensive districts, area vocational schools, a technical college, and four-year institutions have not been as expansive as the junior college growth; nevertheless, a continuous growth pattern is reflected when comparing the total post-secondary enrollment figures since the passage of the Vocational Education Amendments of 1968. Approximately 7,883 students were enrolled in vocational-technical programs during the 1968–69 school year. Reports for the 1969–70 school year indicate a total post-secondary enrollment of 9,068 which represents a 15 percent increase in vocational-technical enrollees.

Numerous post-secondary instructional programs have been implemented and others expanded with the funds provided through the Amendments of 1968. It is noteworthy that we delineate some of the programs in this report.

A major source of post-secondary technical trainees in Missouri is the Linn Technical College. To industry, Linn Tech is a source of personnel trained in aviation mechanics, auto mechanics, auto body, design/drafting, electronics and machine tool technoloy.

Federal funds were utilized in initiating an aviation technology curriculum which was recently approved under the new and stringent FAA regulations, making Linn Tech the first and only school, public or private, to be FAA certified in the State of Missouri.

A program for the training of air traffic controllers has been implemented at the Meramec Community College in St. Louis County. The Junior College contracted with Spirit of St. Louis Airport officials for the utilization of their costly equipment. A new control tower was designed and equipped with dual positions for student training purposes. Licensed air traffic controllers were employed by the college to teach courses and to supervise the students during their on-the-job experiences. Advanced training is provided at an FAA Academy.

Another new program implemented with increased Federal funds is a legal technology curriculum. Meramec Community College in cooperation with the Bar Association of Metropolitan St. Louis designed and developed a training program for legal assistants.

The program, believed to be the first of its kind in the United States, is designed to meet the demand for men and women with an insight and background in the legal profession. Legal assistants and technicians assist lawyers by relieving them of many jobs. With the critical demand on the legal profession because of the expanding need for legal services in both criminal and civil matters, lawyers, by utilizing trained personnel, will have more time to better serve the public.

A major program expansion has occurred during the past three years at the post-secondary level in the health service occupations. Twenty-six programs operating in 19 centers throughout the State with an enrollment of 2,094 were reported for the 1967–68 school year. Last year 43 programs in 33 centers enrolled 2,766 trainees.

The length of the training programs varies from four months to two years. Practical and associate degree nursing programs claim the vast majority of enrollees; however, each year an increase is shown in other health related occupations.

All of the aforementioned programs were partially financed with funds provided under Part B of the Act. Funds allocated under Part D, G, and Section 102(b) of the Act were also used in financing additional post-secondary programs.

An exemplary project funded under Part D of the Act was initiated at the State Fair Community College. The purpose of the project is to develop and field test individualized programmed instructional materials in post-secondary office occupational training programs.

In the first phase of the project, they are concentrating on identifying relevant course content to be programmed and preparing behavioral objectives for all the materials to be programmed.

The second phase of the project will review the individualized instructional materials already on the market and select those which contribute to the behavioral outcomes identified and to develop new materials where needed and organize these materials into an individualized curriculum.

The third phase of the project will be the implementation of courses of study on an individual basis as instructional materials become available. It is expected that the major contributions of this project will be to: 1) provide for individual student differences and offer a program of individualized instruction which will allow students to achieve at their own rate; 2) provide a flexible curriculum which will allow students to enroll at any time; 3) allow M. D. T. referral students to be accepted at any time; 4) allow adults in the community to enroll in any course for which they have the necessary prerequisite at any time; and 5) allow local industries to enroll their employees for specialized courses or units of instruction.

Two hundred and forty post-secondary students are enrolled in new cooperative programs financed by funds derived from Part G of the Act. Two new programs are described in the following paragraphs.

Three Rivers Junior College, a community college in rural Missouri, initiated a specialized distributive education training program in fashion merchandising. Students during the third semester of the two-year program are given eight weeks of intensive on-the-job training. The teacher-coordinator places students in job training positions which are located within a 100 mile radius of the campus and supervises them during this phase of the program.

Fourth semester activities are devoted to further classroom work with the teacher-coordinator fusing on-the-job experiences with classroom instruction. Each student is assisted by the teacher-coordinator in acquiring an entry position.

An auto technology program at the Longview Campus in Kansas City was organized to train shop foremen and other supervisory personnel for the automotive industry. Students are given instruction for the first year of the two-year program in the classrooms and shops located on the campus.

During the second year the teacher-coordinator supervises the trainees in the on-the-job phase of the program. Job placement records indicate that the enrollees have been successful in acquiring adequate positions.

Funds from Section 102(b) of the Act have been utilized in numerous post-secondary training projects. Two programs are exceptional and have received state-wide recognition.

A clerical practice program established for girls from the Hilltop School in Kansas City and administered by the Metropolitan Junior College District of Kansas City has been highly successful. These girls—delinquent, neglected, and school dropouts—were enrolled in a special training program at the Longview Community College campus.

There were no dropouts and many girls gave up camping trips and even release opportunities in order to attend clerical classes. One juvenile official commented that the girls dressed better, talked better and carried themselves with a pride that he had never seen in his six years association with Hilltop.

A program for the academically disadvantaged was started at East Central Junior College which is located in a rural section of the State. It was found that many students lacked minimum ability levels in reading, mathematics and communication skills to succeed in their regular post-secondary occupational education programs.

Students with these disabilities were given a short presession remedial program prior to enrolling in the regular instructional program. Additional remedial instruction was provided for the participants during the regular school year. Evidence indicates that this type of on-going remedial program has greatly reduced their attrition rate.

Despite the recent expansion in post-secondary occupational education, the need and the demand far outpace the availability of such programs. Students cannot enroll in programs that do not exist. Until adequate vocational and technical programs are made available, a solution to the problems of social-made and labor market demands can never be achieved.

In fairness to post-secondary institutions, it should be noted that they are faced with an almost insurmountable task, for many of them are attempting to do remedial work with below-average students, to furnish community services, to develop a salable skill for a majority of the students, and to offer courses that will transfer to four-year institutions. The financial impetus to support these activities has largely been acquired from local support.

It is apparent that the Federal government must decide to either fully support vocational-technical programs, or pay the extra cost involved. Local educational agencies lack the necessary funds to establish and maintain adequate vocational-technical programs.

Although the Vocational Division of the Missouri Department of Education had established a Research Coordinating Unit before the 1968 Amendments were enacted, funds were not available to fund research projects. Funds made available in fiscal year '71 have enabled us to attack some of the research and research-related problems in vocational education.

Research projects being funded at the local level are divided into two types; Level I and Level II projects.

The Level II projects differ from the Level I projects in several ways. The Level II projects are of a "mini-grant" type and carry a $700 maximum State reimbursement.

These projects are aimed at getting people involved in research activities who have not been previously engaged in research and have not had a lot of training. While level of sophistication in research methodology and techniques are not the main considerations for funding, this does not mean concessions are being made relative to the soundness of the idea or basic rationale for the project.

More specifically, these projects are designed to (1) attack specific problems as identified at the local level, and (2) serve as a vehicle to upgrade the research competencies of personnel in Missouri. This latter objective will be accomplished by working closely with the grant recipients in formulating ideas and objectives for the projects, and workshops designed to deal with specific research topics.

The Level I projects require more rigorous specifications as regards the elements of research design.

Adequate information on which to base program planning decisions at both the local and State level has been a major problem. We are now engaged in two activities which promise to provide the kind of information needed to plan quality vocational education programs.

1. The Vocational Division is a participant in a consortium of agencies and institutions in Missouri and Illinois to establish procedures for processing the 1970 census data. The plan is to provide the information in a form that meets the specific needs of the users.

2. Plans are under way for the development of a State-wide manpower supply and demand system. We are obligated to provide vocational training which is realistic in the light of actual or anticipated opportunities for gainful employment. To date, we have primarily relied upon the Missouri Division of Employment Security to provide employment opportunities data. This data does not include manpower supply, and the occupations listed are limited to employers placing job orders with the Division of Employment Security. It is estimated that this represents approximately one-third of the employment opportunities in Missouri, and some relevant occupations are not represented in this listing.

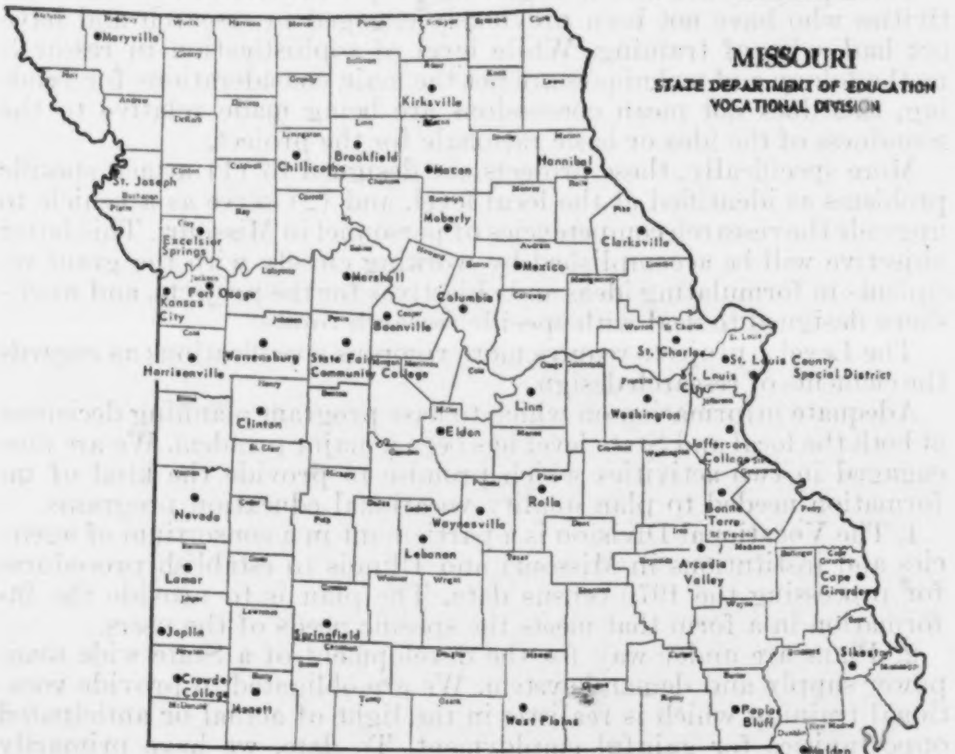
With the assistance of other selected State agencies we plan to develop systematic procedures for gathering, processing, analyzing and communicating to program administrators, information on manpower supply and demand.

The staff of the Research Coordinating Unit has developed a computer based information retrieval system. The major objective of the system is to provide the educators of Missouri with pertinent research and resource information to aid them in the decision-making process.

This information helps keep vocational educators up to date on what is being done all over the country. We feel that having relevant information is a necessity in the process of developing and upgrading professional personnel in vocational education.

Again we want to thank you for the opportunity of presenting this information. We have spoken to each of the items you suggested in your letter. If there is further information we can furnish, we will be pleased to do so. The individuals in Missouri concerned with vocational education are pleased with the continued awareness of your Committee of the problems and needs of vocational education.

Attachment A


MISSOURI
STATE DEPARTMENT OF EDUCATION
VOCATIONAL DIVISION
Maryville
St. Joseph
Kirksville
Brookfield
Chillicothe
Macon
Hannibal
Moberly
Excelsior Springs
Clarksville
Mexico
Marshall
Fort Osage
Kansas City
Columbia
Boonville
St. Charles
St. Louis County Special District
St. Louis City
Warrensburg
State Fair Community College
Harrisonville
Linn
Washington
Clinton
Eldon
Jefferson College
Rolla
Nevada
Waynesville
Bonne Terre
Lebanon
Arcadia Valley
Lamar
Cape Girardeau
Springfield
Joplin
Sikeston
Crowder College
Monett
West Plains
Poplar Bluff
Malden
Kennett

LOCATIONS OF 44 DESIGNATED AREA VOCATIONAL SCHOOLS

ATTACHMENT B

Type of project	1965	1966	1967	1968	1969	1970	1971	Total
New	1	6	5	7	6	1	4	30
Remodeling	1	2	3	3	3	3	1	16
Expansion		2	4	2	4	3	6	21
Site development		1		1		1	2	5
Site acquisition	1	1	2	3	3			10
N.I. equipment		1	2	5	1	1	3	13
Total	3	13	16	21	17	9	15	95

ATTACHMENT C

FUNDS EXPENDED ON AREA SCHOOL CONSTRUCTION

	Total	Vocational Act	ORC	State	Local
Fiscal year:					
1965	$729,857	$364,928			$364,929
1966	5,103,592	1,887,899		$93,369	3,122,324
1967	5,385,043	2,072,788		258,022	3,054,233
1968	5,174,121	2,126,438	$306,469	315,200	2,426,014
1969	8,028,338	2,825,229	536,543	489,013	4,177,553
1970	4,446,793	1,502,500	425,000	106,500	2,412,793
1971 [1]	4,506,219	1,624,122	1,454,000	104,951	1,324,146
Total	33,373,963	12,403,904	2,721,012	1,367,055	16,881,992
Percent		37.16	8.15	4.09	50.58

[1] Planned.

MONTANA

State Director—Ralph W. Mikkelson

STATE OF MONTANA,
OFFICE OF THE STATE SUPERINTENDENT,
Helena, Mont., June 14, 1971.

Mr. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education, Congress of the United States, House of Representatives, Rayburn House Office Building, Washington, D.C.

DEAR MR. PUCINSKI: Research projects include follow-up and evaluation, survey on the success of vocational education graduates, survey on long-range success of graduates, retraining needs, success of consumer and homemaking education, inservice demonstration and training related to job opportunities.

The Research, Planning, Development and Evaluation component will:

Phase I (March 15, 1971 to March 14, 1972) Research, develop and implement strategies for the study of:

A. Population characteristics of the state.

B. Manpower needs and job opportunities for the development of curricula based on job analyses.

C. Status of professional development and the status of development of certification based on performance criteria.

D. Educational dropouts at all levels.

E. Adult and continuing vocational education needs.

F. Employment Status of graduates of post-secondary vocational-technical centers.

G. Status of vocational education in Montana community colleges.

H. Status of student placement by educational agencies.

I. Status of consumer and homemaking programs.

Phase II (July 1, 1972 to June 30, 1974) Implement all strategies in Phase I in order that information may be developed and used in reporting, as well as in planning, implementing and conducting vocational education programs.

Post-secondary education came into full bloom with the 41st Legislature designating five post-secondary centers. These five new centers along with the three community colleges and one four-year college providing vocational education began to meet the need. This is further supplemented by additional adult vocational education provided at the secondary schools around the state.

Education for the handicapped and the disadvantaged is an area where much is yet to be done; however, a good start has been made. Montana has 49,742 disadvantaged persons and 29,000 handicapped persons. Presently, six (6) percent of the disadvantaged are enrolled in vocational education programs and just under one (1) percent of the handicapped are enrolled. There are 42 instructional programs in Montana serving disadvantaged persons and 6 instructional programs serving the handicapped. It is planned to start 27 new programs for the disadvantaged and 5 new programs for the handicapped in 1972.

Distribution of funds is accomplished by the formula set forth in the Montana State Plan for Vocational Education. This is based on a point system of manpower needs of unfilled jobs and average unemployment in each region of the state. The number of dropouts is factored in as well as the percent of graduates continuing on to baccalaureate degree schools. The relative ability to pay is also factored as well as excess costs. This is taken to be based on the average salary and a point value is assigned. Schools falling in economically depressed areas will receive a higher point rating. The foregoing factors are totaled and applied against a rating scale.

Special programs for the disadvantaged and handicapped are reimbursed at a higher level as are exemplary programs.

The Montana Advisory Council for Vocational Education is active in the preparation of the State Plan. The annual report of the Advisory Council makes recommendations for improving vocational education. These recommendations will be in the appendix of the new Montana State Plan for 1972. The Montana Advisory Council also evaluates post-secondary schools and programs.

I would appreciate clarification on the intent of Congress on the inclusion or exclusion of industrial arts in the 1968 Vocational Education Act. Local and state funding agencies are experiencing difficulty in supporting industrial arts at the level it should be funded. It is a little late to make a vocational choice in the 11th or 12th year of school. Students should be exposed to many career clusters in order to learn about the world of work. With this kind of related training with hands-on experience, students will be better fitted to make an occupational choice.

I hope this information is what you need and if I may be of further help, please let me know.

Sincerely,

RALPH W. MIKKELSEN,
Assistant Director, Development of Vocational and Occupational Skills.

NEBRASKA

State Director—Glen H. Strain

STATE OF NEBRASKA,
DEPARTMENT OF EDUCATION,
Lincoln, Nebr., June 14, 1971.

HON. ROMAN C. PUCINSKI,
General Subcommittee on Education, Rayburn House Office Building, Washington, D.C.

DEAR CONGRESSMAN PUCINSKI: This letter is in response to your recent letter requesting a detailed statement of our State's progress in various areas of vocational education since 1968.

Although the 1968 Amendments have only been law since July 1, 1969, many new and exciting things are happening in vocational education as result of this profound legislation.

Through the efforts of the National Advisory Council and the State Advisory Council, many more people have been made aware of the importance of vocational education and the part it must play in the mainstream of education in preparing people for employment. The publicity which the National Advisory Council reports have received has definitely made several boards of education and school administrators reevaluate their thinking as to what the purpose of education is in total school systems. Many schools have begun to revise the requirements for high school graduation by reducing academic requirements and making room for occupational offerings. More emphasis is being placed on Vocational Guidance and Counseling in the local schools as more and more school boards are realizing that they must adequately serve all of the pupils in the system. Although changes come slowly, it appears that a complete new respectable attitude is emerging for occupational education in the schools' curriculum.

In reviewing the progress in Nebraska since the 1968 Amendments became effective, perhaps the greatest limitation was incurred when Federal funding was delayed until March, 1970, which allowed only three months to implement special types of vocational programs referred to in the Amendments and the State Plan for the 1970 fiscal year. The uncertainty of funding generates a reluctance in local schools to invest time and effort in program planning. Certainly, it should be recognized that time is needed to implement the special programs. The Tydings Amendment has been a great help in being able to utilize 1968 monies more effectively. It is hoped that Congress will soon appropriate money at least six months prior to the beginning of the fiscal year so that schools can have some assurance of receiving money and be able to make effective plans. It is also hoped that the Tydings Amendment effect of making the appropriated money two-year money instead of one-year money can be continued since this gives more flexibility in being able to do things differently and more effectively.

Research—Part "C"

We realize that Research is a vital part in any modern enterprise and vocational education is no exception. However, Research under Part "C" of the 1968 Amendments has not been given much of a chance to really demonstrate what can be done. For example, during the first year under the Act (FY 1970), only $15,000 was appropriated to the State of Nebraska. This amount is very meager compared to amounts which were available under the 1963 Vocational Education Act. It was necessary for our State to utilize this money to help keep the Research Coordinating Unit alive, which we think carries out a vital and important function. We would like to see this become 100% Federal money since this would allow more bargaining power. See Attachment A–1 which explains the accomplishments of the Nebraska Research Coordinating Unit since 1968.

Research funding for the second year of the Act (FY 1971) was not certain until in November after the fiscal year had started July 1. Utilizing priorities established earlier, seven research proposals were eventually approved to start late in the fiscal year. We are quite pleased with the approved projects and believe they will do much in helping to improve vocational offerings in Nebraska.

Exemplary (Innovation)—Part "D"

I would say that some of the most exciting things which are happening under this Act are those projects under the Part D Exemplary or Innovative area. This 100% Federal money has made it possible for several schools to try new innovations which we think have real promise. Again, even though there was no assurance of funds the first fiscal year (1970) until March, Exemplary projects were underway before the end of the fiscal year. Four Exemplary projects were approved and funded under the State's share of funds for FY 1970. Three of these projects continued into the second year of funding. These Exemplary projects are proving to be cery successful and are beginning to provide new directions for consideration in vocational education.

State Advisory Council

The Nebraska State Advisory Council is beginning to become very knowledgeable concerning vocational education in the State, and as such, is in a much better position to make recommendations to the State Board. The Annual Evaluation of the Vocational Program has provided the basis for much discussion and constructive improvement.

Postsecondary Education

Postsecondary education in Nebraska at the 13–14 grade level has expanded very rapidly the past few years. In 1965, there was only one postsecondary area vocational technical school and two or three Junior colleges offering some vocational education. The total enrollment was about 500 students. Today there are eight postsecondary area vocational technical schools and six Junior and/or Community colleges offering vocational education, with an enrollment of approximately 4,500. Much of this expansion has been brought about through the leadership of Federal Congress in enacting the 1963 Vocational Education Act and the 1968 Vocational Amendments. The State Legislature is now assisting the schools with considerable State aid. Many additional occupational programs offerings are being added each year.

I hope that postsecondary education remains a part of the Adult, Vocational-Technical Education Branch. I am very much concerned that if postsecondary education becomes a part of higher education that vocational education at 13–14 years will suffer similarly to what it has in the past under the supervision of General Academics and become a stepchild in education. Technology in our society is too important to let this happen.

Education for the Disadvantaged and Handicapped

Education for the disadvantaged and handicapped was slow in getting underway in FY 1970 due again to the lack of assurance of funding until late in the year; however, thanks to the Tydings Amendment, we were able to utilize the funds. Since this slow start, considerable progress has been made and we believe a very rapid expansion will continue to take place.

Cooperative Part "G"

We are very pleased with what we have been able to do under this part of the Act, and believe for the short time the 1968 Amendments have been in effect that much progress in Cooperative Education has been made.

Methods of intra-State distribution of funds

This has been an area of confusion, frustration, and complexity, particularly under Regular Programs in Part "B" of the Act. The insistence by the U.S.O.E. that this part be quantifiable and formulized has been a great source of discontent among school administrators in our State. Whenever the four factors under the law must be weighted and then formulized for allocating funds, it becomes almost ridiculously complex to understand and school administrators do not like this.

There surely must be a better way of satisfying the non-uniform ratio allocation required by the law than the multiplicity of ways states are handling this part.

In our State, support for each LEA conducting vocational programs under Part "B" is primarily accomplished by applying the non-uniform reimbursement formula. The formula requires a composite score for each school, based on a weighted rating of the following factors:

1. Manpower Needs and Job Opportunities
2. Vocational Education Needs
3. Relative Ability to Pay
4. Excess Costs

Problems have been encountered in acquiring proper information on Manpower Needs and the identification of the disadvantaged and handicapped; however, we feel we are gaining some each year on this problem. Our formula is based upon merit on what the LEA is doing about its problems compared to other LEA's.

One of the best features of this Act is the interpretation that matching does not have to be by purpose under Part "B" but only needs to be matched overall. This has helped us to assist many LEA's that have real financial problems.

One part of the Act that is not feasible nor possible, in my opinion, is the local maintenance of effort requirement. This is not at all compatible to meeting changing occupational needs, local salary fluctuations, efficiency factors, local tax problems, merit reimbursement, etc. It is my opinion that maintenance of effort on a Statewide level basis is much sounder, and allows the flexibility needed in attempting to meet one of our primary objectives of getting vocational education to everyone who needs it and can profit it.

It should be noted that certain portions of the Amendments require the option of participation from the non-public school population. The Nebraska State Plan points out that students from non-public schools may enroll in a public school as a dual enrollee and that non-public school officials should be consulted. Time is needed to implement the special programs. Since the Nebraska State Constitution prevents public monies from education being allocated to non-public institutions, it is extremely difficult to adequately serve some of the disadvantaged and handicapped youngsters in those LEA's that are reluctant to accept dual enrollment. I would recommend the *required option* of non-public school student participation be made optional and not mandatory. This would allow several LEA's to fully participate in the 1968 Act that cannot do so at the present time.

Basically, this is a good Act and with a *few* changes, I believe will prove historically to be one of the finest pieces of legislation ever to be enacted.

Thank you, Congressman Pucinski, for your dedication, commitment and efforts in getting sound, modern, progressive legislation in the field of vocational technical education. Millions of people in this great country of ours recognize and deeply appreciate your wisdom and understanding of present day American problems in education and what you are doing about it.

Sincerely yours,

Glen H. Strain,
State Director of Vocational Technical Education.

Enclosures.

Accomplishments of the Nebraska Research Coordination Unit for Vocational Education, 1968–1971

The Nebraska Research Coordinating Unit For Vocational Education has addressed itself to the development of a model for the translating of occupational opportunities data in terms of state and local programs of vocational education. The mechanics of the model have been computerized to minimize the time lag between changes in occupational structure of the labor force and the training and educational process. The result of the undertaking has been the publication of the fourth in a series of annual studies, designed to assess the need for employees in Nebraska. This study has been widely used by administrators and curriculum planning committees as well as state department officials in the *State Plan for Vocational Education.*[1]

The Nebraska RCU has provided guidelines and technical assistance to communities in determining their local vocational needs. There have been some 20 local needs studies conducted with the assistance of the NRCU since 1968.

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[1] *Occupational Opportunities in Nebraska*, Nebraska Research Coordinating unit for Vocational Education, University of Nebraska, Lincoln (1968–1971).

The RCU also has developed and is maintaining a resource center of technical research documents which are helpful in supporting vocational research activity. The Nebraska center now contains over 3,000 items of hard copy of technical resource documents which are available to all persons or agencies throughout the state which can benefit from the services. In addition to the hard copy, the resource center also contains all microfiche processed by the VT Clearinghouse through fiscal year 1969.

Another function of vocational research support conducted by the RCU is that of vocational research dissemination. This function has in part been fulfilled by the RCU "NEWSLETTER" which is prepared and mailed monthly to over 1,800 vocational teachers, administrators, counselors, and school board members. The "NEWSLETTER" carries carefully abstracted summaries in vocational research activity related in terms useful to the practitioner in the field.

The lateness of funding in the area of research caused delay in many activities which are now in the initiation stage. Research proposals have been developed through the assistance of the RCU staff and Reading Committees appointed by the Division of Vocational Education and the Research Coordinating Unit.

CONTRIBUTIONS TO VOCATIONAL EDUCATION BY THE NEBRASKA STATE ADVISORY COUNCIL

The first state evaluation was the most significant contribution to vocational education in Nebraska by the Advisory Council. This observation is supported by the impact which has resulted from within the state as the result of the evaluation.

It was the decision of the Nebraska Council that the evaluation should be formulated by the Council members with supportive data provided by the Council staff. The Council felt that contracting for an outside agency to gather data and write the report would not help the membership become more knowledgeable about vocational education in the state.

The Council staff was directed to gather all existing data possible for preparing the recommendations of the evaluation. A bibliography of documentation was included with the report. It was also agreed that the Council was not to become a data generating agency. However, a number of data "voids" were uncovered during the process of preparing the evaluation and the following studies had to be conducted by the Council staff to assure a data base for formulating some of the recommendations:

Output from Private Vocational Schools
Vocational and Vocationally Related Teacher Preparation
Summary for Vocational Guidance Activities
Comparison of Opportunities and Postsecondary Output
Summary of Local Advisory Council Activity
Impediments to Vocational Education Progress
Followup of former students (Incomplete Data)
A quarterly average of unfilled job openings in Nebraska from State Labor Department Data, R. & D. Division.

The actual formulation of recommendations which made up the evaluation was written by subcommittees of the Council. Each subcommittee was assigned a specific goal in keeping with the format which had been agreed upon by the combined state councils and the National Advisory Council. Each subcommittee then presented its report to the complete Council for alteration and acceptance.

In order for the report to be most effective and to reach all interested persons, 1000 copies of the report were ordered at the time of the first printing. This estimate proved to be too low. Within six weeks a second printing of 2000 more copies was ordered which more adequately met the needs.

At the time the State Board of Education accepted the evaluation, a number of news agencies were called in to prepare statewide news releases. The reporters' interpretation of what they considered the important features left much to be desired. In order to get a little better coverage from the press, the Council staff prepared three other news releases which were issued at two-month intervals. The Council called news conferences at the time of their regular Council meetings. The news releases were distributed at those times. This proved to be much more effective. Pertinent issues were emphasized in depth with some interpretation. The impact of the evaluation was more evenly distributed throughout the year rather than in a single coverage.

One other activity was conducted to assure impact from the evaluation; small group meetings were scheduled with agencies which were directly addressed in the report. These included the following:

The State Division of Vocational Education Staff
Vocational Teacher Education Departments
State Association for Vocational Guidance Counselors
State Council for Occupational Teacher Education
The Advisory Council for EPDA
The State Association of Area Technical Colleges
The Nebraska TTT Commission

Reaction was encouraged from the groups. Especially solicited were points which might not have been accurately assessed by the Council. The only negative reaction was concerning the lack of commendation where an outstanding accomplishment had been attained—and there were many such instances. The evaluation did mention several worthy achievements, but many more could have been cited. In some cases, wording had to be interpreted to convey the full meaning of the recommendation.

The evaluation of the state's vocational education effort completed the missing link necessary to achieve a statewide systems approach to vocational education. The goals are stated in the *Nebraska State Plan for Vocational Education*. The *Guidelines* to the state plan provide the "how" and the evaluation is the assessment of accomplishment in terms of the objectives.

Other influences which have been exerted by the Advisory Council since it was organized can be summarized as follows:

a. Increased emphasis of vocational teacher education. The supply and quality of vocational teachers was identified by the Advisory Council as a limiting factor to the expansion of vocational education in the state. Evaluation recommendations by the Council were incorporated into the TTT report, the State Plan for EPDA, and the State Council for Occupational Teacher Education.

b. Activity was started on a State Master Plan for Vocational Guidance as the result of a specific recommendation to the effect in the Evaluation Report.

c. The need for improved image in vocational education was emphasized in the Evaluation Report. The Council has produced a "spot" videotape to pursue the image objective. Image improvement for vocational education was strongly recommended for upgrading to counselors, administrators and vocational teachers in the state.

d. Educational service units have become more involved in vocational education as a result of the Council's influence. ESU #6 at Milford was funded for a $24,246 vocational needs and curriculum study. ESU #5 and #3 submitted unsuccessful proposals which were unfunded, and ESU #12 was funded for a second year for a vocational exemplary project.

e. Goal VI of the 1970 Evaluation was a recommendation for a statewide master plan for postsecondary vocational education. Such a plan was passed by the 1971 Nebraska Legislature. Many other educational agencies and organizations were also involved. The Council's influence was instrumental in removing an objectional full funding amendment. For the first time, vocational education and the State Board had the benefit of a lobbying influence.

f. A vocational research project was funded by the State Board for vocational industrial teacher preparation. This came about in part from the Council's recommendation to overcome the paucity of teachers in this area. The funding was awarded to Kearney State College in the amount of $28,000.

NEBRASKA'S PROGRESS IN SPECIAL VOCATIONAL NEEDS (DISADVANTAGED & HANDICAPPED PROGRAMS FOR HIGH SCHOOL, POST HIGH SCHOOL, AND ADULTS) SINCE THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

The disadvantaged and handicapped population in Nebraska resides in both urban and rural areas. This group is composed of—individuals possessing socio-economic handicaps, school dropouts, unemployed and underemployed, members of minority groups, persons mentally and physically handicapped, emotionally disburbed, and those who possess learning disabilities, all of whom cannot succeed in regular vocational programs.

Funds allocated for the 102(a) disadvantaged and handicapped programs are used to promote vocational programs that are adjusted, modified, and adopted to serve this population. Funds allocated for the 102(b) disadvantaged has the same objectives, but are allotted mostly for special or innovative projects in areas of high dropout and unemployment. Adequate programming and appropriate services are provided to retain this group in a meaningful setting to prepare them for gainful employment.

Efforts are being made to utilize and cooperate with all agencies to better serve the disadvantaged and handicapped population. The State Department of Education has an Ad Hoc committee that meets each month to explore how this population can be better served. Presently efforts are being made to locate the disadvantaged and handicapped population in Nebraska and inform the people of the help available for them.

Progress in the disadvantaged and handicapped programs was slow in fiscal '70 (school year 1969–70), because there was no assurance of funding until April 10, 1970. Thirteen Special Vocational Needs programs were organized in this period, which served 1,435 persons on the secondary level. In addition, 5,811 were served in the regular vocational programs.

Since the concentration on vocational education for the disadvantaged and handicapped was quite new, much additional vocational education materials needed to be developed. To meet this need, 12 schools worked during the summer of 1970 to develop some of the necessary courses in all vocational areas. Four area summer workshops for Special Vocational Needs teachers were held, with one statewide conference. Through this effort, many individual courses of study were developed in addition to one comprehensive *Curriculum Guide for Special Vocational Needs.*

Fiscal '71 (school year 1970–71) saw considerable growth in the disadvantaged and handicapped programs. Special Vocational Needs programs in 37 secondary schools served 4,111 pupils, while 25 regular programs served approximately 8,000 additional persons with special needs. One additional staff member with the existing half-time staff member, paid entirely from federal funds, helped to make this increase possible. Approximately 30% of the secondary population is presently being served. Only one post-secondary school was served in fiscal '71.

During fiscal '71 (1970–71) an extensive effort was made to serve the minority population. Two special programs for Indians have been put into action—one at Winnebago and one at Alliance, where no Indians have graduated from the high school there in 27 years. Both of these programs have been successful and will be continued in fiscal '72 (1971–72). Special programs have been organized for fiscal '72 to serve the total secondary area in Omaha, a depressed and heavy populated area with a large dropout and minority population. An "Occupational Skill Center" is presently in operation in Omaha to serve the dropouts and pushouts. Both Lincoln and Omaha areas will have outstanding programs for the handicapped in fiscal '72, in addition to Beatrice and the Holdrege areas. The Lincoln area project for the "Training for Occupational Proficiency of Handicapped Youth" might well be one of the most outstanding new approaches to providing job skills and on-job training for the trainable mentally retarded.

Special area workshops will again be held this summer (1971) to permit the development of curriculum materials and assist teachers in becoming vocationally trained to serve the disadvantaged and handicapped populations. A special vocational teachers pre-service and in-service two-week 3-hour college credit workshop for Special Vocational Needs teachers has been arranged at Kearney College this summer (1971). This course will also be held at various centers in fiscal '72 (1971–72) with an additional 3-hour course being prepared for fiscal '73 (1972–73). These courses are expanded to the various areas, including occupational guidance, until all needs of vocational education are achieved. The college credit courses are unique in that the major textbooks and workbooks are forwarded to the teachers enrolled for advance preparation. Each section of this course is presented with slides and video tapes and cassette tapes. This feature permits the same quality of instruction in each area where the course is conducted. If Nebraska is to meet the teacher needs for the 102(a) and 102(b) programs, it will be required to provide training of approximately 600 teachers by 1976. This is Nebraska's plan for training the quality teachers needed to serve people with Special Vocational Needs.

In fiscal '72 (1971–72) it is anticipated that Nebraska will have about 100 secondary schools with programs serving approximately 16,000 secondary pupils, which will be about 37% of the disadvantaged and handicapped secondary population. Considerable effort will be made to expand the programs to include post high school and adult persons, however, with our limited staff, we do not expect to serve more than 1% of the post secondary population and about ½% of the adult population in fiscal '72. An effort will also be made to organize programs in the Nebraska Penal Complex and childrens' homes. This area has moved slowly due to Nebraska's legislative restrictions.

Nebraska public school educators and teacher training institutions are slowly becoming aware of the need for vocational education for the disadvantaged and handicapped population and are beginning to organize to meet this need. Considerable input is needed in the post secondary and adult areas, but it is doubtful that this need can be met until the Nebraska legislature permits the necessary staffing. Nebraska is functioning with 1½ professional staff in the 102(a) and 102(b) programs, and therefore will probably not be able to expand the operation to any great extent.

Highlights of Part G, Cooperative Education of the Vocational Act of 1968

With the appropriation of funds under the Vocational Act of 1968 for Cooperative Education, there has been a tremendous growth of quality Cooperative Education Programs in Nebraska.

The following is a summary of the actual growth and projections for growth of Cooperative Education in Nebraska with the use of Section G Funds:

Student enrollment:	
Fiscal year 1970 (12 programs)	155
Fiscal year 1971 (44 programs)	640
(Projected) fiscal year 1972 ((60+) programs)	(800)

The largest growth has been the Diversified Occupations Cooperative Education Programs in Nebraska. The D.O. Program was developed for the smaller community which has a limited number of quality training stations. The smaller communities (2,000 or below) see the Cooperative Education Program as:

1. A method of making students aware of local employment opportunities.
2. A method of retaining quality students in their local community.
3. A system of training students for local manpower needs.

Although the economy is in a period of little growth, employers seem to be willing to serve as training sponsors for our Cooperative Education Program. As the economy begins to expand again, projected student enrollment and the number of training sponsors will also grow accordingly.

The Vocational Division has approved a project through the University of Nebraska to train teacher-coordinators by pre-service and in-service programs for the future anticipated growth. The project has been developed around a mediated approach to learning. The mediated materials which are being developed will be used for pre-service and in-service programs to be held throughout the state.

During the fiscal year of 1971 there has been eight (8) in-service meetings for teacher-coordinators in five (5) different regions. The purpose of these in-service meetings was to identify problems teacher-coordinators were having in the field and develop materials which would assist the local teacher-coordinator in solving their problems in the operation of their Cooperative Education Programs. We had a total of ninety (90) participants unduplicated who attended these in-service meetings. There were a total of 140 participants *duplicated* at the in-service meetings. The participants included teacher-coordinators of new Cooperative Education Programs and a few superintendents, principals, and guidance counselors.

The outgrowth of these in-service meetings for this fiscal year (1971) has been the development of a coordinator's handbook on labor laws as they pertain to the operation of a Cooperative Education Program as well as related class curriculum materials.

Summary Comments by parents and local Vocational Education Advisory Councils:

1. Parents spoke to local boards of education explaining how the Cooperative Education Program in their community helped their son or daughter.
2. Local Advisory Boards recognize the need for more practical education.

The above mentioned growth and development of teacher-coordinators and Cooperative Education Programs could not have been realized without the appropriation of funds for Cooperative Education under the Vocational Act of 1968. There is still a need for more funding in the future to meet the manpower needs in Nebraska.

NEVADA

State Director—R. Courtney Riley

STATE OF NEVADA,
DEPARTMENT OF EDUCATION,
VOCATIONAL-TECHNICAL AND ADULT EDUCATION BRANCH,
Carson City, Nev., July 7, 1971.

Hon. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education,
U.S. House of Representatives,
Rayburn House Office Building,
Washington, D.C.

DEAR REPRESENTATIVE PUCINSKI: In response to your request of May 19, 1971, enclosed is a brief comparison of progress in Vocational Education in Nevada which has been achieved subsequent to passage of the Amendment. There is no question that the direction promulgated by Federal legislation was a significant factor in the program progress as shown. It is particularly appropriate to note the high ratio of program increase in proportion to the moderate increase of Federal funds.

In accordance with your request, I would like to share with you some general comments regarding the improvement of Federal Law, administration of Vocational Education programs, and innovation in career education:

1. A way must be found to determine the total amount of Vocational Education funds available to a state at least six months prior to the beginning of a fiscal year. Funding a year in advance similar to the ESEA legislation may be appropriate.

2. Why must so many hundreds of millions of Federal dollars be allotted for remedial vocational purposes and comparatively so few allotted for developmental purposes? In my opinion, systematic and accelerated occupational preparation of all children and youth should receive top priority for Federal support, the alternative being an increase in retraining and other remedial programs for people who could already have prepared themselves for careers.

3. There is a need for a prominent place for Vocational Education in the U.S. Office of Education.

4. There is a need for Departmental status for the U.S. Office of Education. I feel that assuring quality education for all citizens in the country is certainly as critical an issue to address as the need for transportation, housing, and urban development, etc.

5. Vocational Education is unique in that it can be meaningful to people of all ages and in all educational levels up to the baccalaureate degree. It transcends the capabilities of any single existing educational or noneducational institution currently existing in the country today.

In order for a comprehensive approach to career education to take place, a central agency must carry the control and responsibility to insure that all career education for all people on all levels is available in a sequential and relevant pattern, whether developmental or remedial. Only an agency which is substantially nonoperational by nature can effectively and without conflict of interest insure that such career opportunities are available to the citizenry. I submit that state departments of education, under direction of elected boards, are the sole agencies capable of meeting these criteria. Boards of Regents are operational, often too many in number, and generally operate within the context of the postsecondary and adult program. Employment Security Office of Economic Opportunity, and other like agencies are not only operational, but they are generally capable only of remedial efforts due to lack of state and local tax base support. Departments of education are not operational agencies and are capable of insuring that presecondary, secondary, postsecondary, and adult students can be served through developmental and remedial career education programs.

6. The allocation formula for vocational education funds is based on population related to a factor of per capita income. The per capita income factor is dictated by law, and no consideration is able to be given to the cost of living index or the impact of the tax structure of a state where millionaires in residence can affect the per capita income (one Howard Hughes can make quite a difference in a population of 500,000). The result is that allocations are not necessarily consistent with numbers of people in need.

7. In regard to innovative ideas and programs in career education, I would suggest that particular care should be taken to consider the following:

   a. That interagency, interstate and regional information banks regarding innovative programs be established so that those ideas and programs which may be innovative in one area can benefit from experience gained in a similar program in another area.

   b. That innovative projects be thoroughly and fairly evaluated.

   c. That they be feasible in terms of cost per student and placement on jobs.

Information relating to specific program segments of Vocational Education in Nevada follows:

1. *Research.*—In accordance with the terms of the legislation, FY 1972 funds for research will be utilized as follows:

   a. Evaluate exemplary vocational programs.

   b. Work with the Nevada State Employment Security Department to provide current occupational information to all schools throughout the State.

   c. Establish a Vocational Information Bureau for use by all of Nevada's vocational educators.

   d. Develop a job cluster system for the State of Nevada.

   e. Conduct a study to determine the feasibility of designating an overall coordinator for vocational youth groups.

   f. Evaluate specific vocational projections as designated by the Vocational Education Branch staff.

All these uses reflect priority needs for career education in Nevada.

2. *Postsecondary Education.*—The postsecondary vocational enrollments in Nevada will have increased from 1,088 in FY 1969 (last operational year before Amendment impact), to 2,912 in FY 1972, an increase of 167.64%. The number of teachers increased from 99 to 197, an increase of 98.9%. The impact of the legislation plus the new community college system in Nevada are most likely causal factors in the increase.

3. *Vocational Education for the Disadvantaged and Handicapped.*—Programs designed specifically for the Disadvantaged and Handicapped (corresponding roughly to "Special Needs" in the old legislation) will have realized increases in enrollments from 1,248 in FY 1969 to 2,371 in FY 1972, a gain of 89.9%. The number of teachers in such programs will have increased from 44 to 74, or 68.18%. There is no doubt that the funds resulting from the legislation directly caused this increase.

4. *Intra-state distribution of funds.*—The Nevada State Department of Education's procedures for the distribution of Federal and State funds for Vocational Education have been drastically modified as a result of the Vocational Amendments of 1968 and the leadership provided by the U.S. Office of Education. All FY 1972 proposals for funding and local program plans were submitted by February 5, 1971. Each part of each applicant agency's proposal was reviewed twice by staff members and twice by outside reviewers. Amounts of funds available were allotted based on those reviews; formulated amounts considering such factors as high unemployment areas and high population density areas; and field reviews by staff members. Allocations were made on May 7, 1971, subject to change if the amounts of Federal funds varied from the amount anticipated by the State Department of Education. Funding local proposals has become a fair process whereby every applicant agency is able to know why it received a certain amount of funds for Vocational Education.

I appreciate the opportunity to participate in the oversight hearings on the Vocational Amendments of 1968, and can assure you that we are making every possible effort to maximize the benefits of Federal tax dollars spent for Vocational Education in Nevada.

Sincerely,

R. COURTNEY RILEY, *Director.*

COMPARISON OF VOCATIONAL EDUCATION PROGRESS FROM FISCAL YEAR 1969 TO FISCAL YEAR 1972

	Fiscal year—		Percent increase
	1969	1972	
Federal dollars expended, total	$596,032	$705,226	18.32
Unduplicated—Teachers, secondary	199	387	94.47
Unduplicated—Teachers, postsecondary	99	197	98.99
Unduplicated—Teachers, adult	219	297	35.62
Unduplicated—Teachers, "special needs" [1]	44	74	68.18
Total—Enrolled in vocational education	18,140	24,771	36.55
Total—Enrolled, "special needs" [1]	1,248	2,371	89.98

[1] Special needs as reported in fiscal year 1969 are conservatively estimated in that the base was converted to programs for disadvantaged and handicapped in fiscal year 1972.

Sources: Nevada State Plan for Vocational Education, fiscal year 1972. Annual Descriptive Report, fiscal year 1969, Nevada.

NEW HAMPSHIRE

State Director—Neal D. Andrew

PREPARED TESTIMONY BY NEAL D. ANDREW, CHIEF, DIVISION OF VOCATIONAL-TECHNICAL EDUCATION, STATE DEPARTMENT OF EDUCATION, CONCORD, N.H.

I am most appreciative for this opportunity to provide testimony concerning Vocational Education in the State of New Hampshire. Our State, although small, has great need for Vocational Education at all levels. Although changes have taken place during the past ten-year period there is still much to be done if we are to serve the needs of all of the people.

In 1963, at the time of the passage of the Vocational Education Act, we had two small technical institutes and a plan for a statewide post-secondary vocational-technical program. We now have a Technical Institute and six Vocational-Technical colleges geographically located and providing vocational education programs for the entire state.

In 1963, we had a substantial number of secondary schools providing Home Economics Education, a few schools providing Agricultural and Trade and Industrial Education programs and one school offering Distributive Education. Since 1963, we have developed a plan for the establishment of twenty regional secondary vocational education centers and we are in the process of implementing that plan through the designation of centers at this time. In the meantime, we have expanded our secondary offerings to include seven new Distributive Education program, twenty-five Office Occupations programs, and six new Occupational Home Economics programs. Nine additional schools are offering Trade and Industrial programs, 80% of the Homemaking programs have been reorganized and although most Health offerings are at the post-secondary level, two have been established in secondary schools and plans are being made for additional programs in the twenty regional centers.

In 1963, we had a scattering of adult education programs that served the needs of persons at the discretion of local school districts with some adult education in our two technical institutes. We now have a planned program of adult education in our seven post-secondary institutions, expanded programs in apprenticeship training, and considerable interest being developed to establish programs in the new regional secondary centers. We have also created an adult program in Fire Service Training that has involved volunteer and regular firemen from 170 of New Hampshire's 234 towns and we have plans for implementing a two-year post-secondary program that has resulted from the positive effect of the adult education activity.

In 1963, Vocational Research was non-existent and programs for Disadvantaged and Handicapped persons funded through Vocational Education, had not been developed. In the past eight-year period, we have developed programs in thirty institutions to either directly serve or provide assistance to disadvantaged and handicapped persons.

With the exception of the post-secondary program which has been developed largely with state funds, changes in Vocational Education from 1963 to 1971 have been caused by the Vocational Education Act of 1963 and the Amendments of 1968.

I would like to present some additional information concerning some of these areas to further clarify our feelings toward the Vocational Education Acts.

RESEARCH

Through a grant from the Vocational Education Act of 1963, a Research Coordinating Unit of one staff member plus secretarial assistance was added to the Vocational-Technical Division. The Research Coordinating Unit Director has since that time been actively involved in stimulating small but important research projects through local school districts as well as coordinating one or two major state programs. The primary value of this leadership has been to stimulate at the local school district level, a positive attitude toward educational research in Vocational Education by the administrators and teachers of the local school units.

In New Hampshire, many of these local units are single town school districts with a few having united into a cooperative relationship. Prior to the initiation of the research unit, few of these communities had done much to evaluate their vocational needs or develop plans for the future. The small financial encouragement that was offered to them plus the substantial personal involvement of the research unit director, has done much to create a new attitude among the administrators and teachers in these communities. For the first time, some of our schools are taking a good sound look at student needs, manpower needs, and the development of relevant student oriented programs. All as the result of a small investment in staff to coordinate and develop a positive attitude toward research.

The Research Coordinating Unit also undertook and completed with the help of central office staff, and in cooperation with teacher educators and local school personnel, a study of teacher education in the state and produced a plan for the future. This has increased emphasis on vocational teacher education in the State University system and has also resulted in expanded in-service education opportunities for vocational teachers. Although no major documents have been produced in the line of pure research much of value has resulted from the establishment of our small Research Unit at the state level.

PROGRAMS FOR HANDICAPPED AND DISADVANTAGED

Until the inception of the Vocational Education Acts, little had been done to work specifically with persons who are or may be classified as Handicapped or Disadvantaged. This was due largely to a lack of funds for regular programs to say nothing of funds for special purposes. Prior to this time, the provisions of such services had been left largely to Vocational Rehabilitation and other concerned agencies. During the first five years from 1963 to 1968, small gains were made because of the requirement for specific earmarked matching funds. The 1968 Amendments opened the door for us to work closely with local school districts through the provision of substantial amounts of money with an across-the-board statewide matching. A staff member was added to coordinate and develop programs for disadvantaged and handicapped persons. In turn, a new awareness of the problem and the value of inter-agency cooperation was developed. We now have a policy in Vocational Education that will not fund a program for disadvantaged and handicapped until we have coordinated our activity with those other agencies also involved in serving the needs of disadvantaged and handicapped persons. Vocational Rehabilitation, Special Education (Title VI—ESEA), as well as private state agencies are all involved in helping to meet the needs of these individuals. We have one instance in our state where Vocational Rehabilitation is providing the counselling and medical assistance if needed, Title VI is providing the necessary special education component, Vocational Education is providing the vocational component of the education system and in addition, Title I—ESEA, and the Governor's Commission on Crime and Delinquency have become involved in the provision of education for disadvantaged and handicapped youth and adults in the community on a joint basis.

As I have indicated earlier, we are involved in the establishment of twenty regional vocational education centers at the secondary school level. It is our intention and that of the Division of Vocational Rehabilitation that when cooperative Rehabilitation programs are planned with local school districts, they will be established in the regional centers. Thus, we will guarantee that wherever a Rehabilitation component is developed, a vocational program will also be available to serve the needs. Hopefully, this will eventually encompass the entire state so services will be available within a reasonable commuting distance of all persons. Our programs for disadvantaged and handicapped have also involved private schools or agencies. We have programs for the emotionally disturbed in the New Hampshire Hospital, at Spaulding Youth Center and Pine Haven Boys Center. A program at Crotched Mt. Rehabilitation Center serves the handicapped. Many of the individuals involved have multiple handicaps yet some remarkable programs are being conducted under difficult conditions and with limited funds.

Our state still operates a county jail and house of correction system. Through joint planning with Vocational Rehabilitation we have established a vocational program in one of the county houses of correction which has proven successful even for those persons who are detained a short period of time. It is anticipated that this pilot program will result in attracting Crime Commission funds for the continuation of the project and hopefully, expansion into other counties throughout the state as a regular part of those institution's rehabilitation system.

From no programs in 1963 we have moved to 39 programs in thirty communities involving 715 youngsters and adults in 1971. We recognize there is still much to be done but feel strongly that we are well on the way to providing an outstanding service to many deserving persons.

POST-SECONDARY EDUCATION

Historically, New Hampshire has had a long standing commitment to post-secondary education in the vocational-technical field. A two-year program in our University system has been operated since the early 1900's. In the mid 1940's, two "trade" schools which became technical institutes were established. In 1961, a ten-year plan was adopted to provide improved and expanded post-secondary education in the state. This resulted in the development of six post-secondary vocational-technical colleges and a state technical institute. These institutions are largely supported from state funds. Some Vocational Education Act money has been used to assist in meeting emergency needs as buildings were being constructed; but this was a small part of the program's development. Substantial amounts of the 1968 Amendments' 15% allocation has been used for the purchase of equipment which was not available due to the limited state appropriation. In addition, Vocational Education Act funds have been allocated to create new programs until the state could assume the responsibility for their operation. In our northern most county, we have for the past three years, provided a Licensed Practical Nursing program which will this year, become an integral part of the operation of the Vocational-Technical college in Berlin, utilizing 100% state funds. It is hoped that the Vocational Act funds released can now be utilized to provide additional educational opportunities at the post-secondary level on an experimental basis until such time as the programs have proven their value and can be absorbed into the regular budget of the institution. In addition, the upgrading of equipment is always difficult and the vocational funds have given us the flexibility to assist in keeping our post-secondary educational programs current.

Plans for expansion of our post-secondary institutions are being developed but present funding in the state will prohibit much activity in the near future. The New Hampshire Technical Institute which is already accredited has utilized, in the development of their facilities, over $950,000 of Higher Education Commission and Allied Health Act funds. Through the development of a new regional accrediting commission to evaluate and accredit secondary and post-secondary vocational-technical programs, we hope to be able to qualify to also utilize funds available through the Higher Education Commission at our Vocational-Technical colleges. Needless to say, we are very much interested in H.R. 7429 "The Occupational Education Act of 1971" which can be of considerable benefit to our post-secondary programs. It is hoped that with the passage of H.R. 7429, that these funds will substantially assist in expanding the vocational-technical college and the Technical Institute. We must also indicate that the utilization of post-secondary funds has not been limited to our own colleges and institute. Funds have been made available to the two-year program at the University of New Hampshire and at Keene State College whenever applications have been received. It should be noted that although our vocational-technical colleges and technical institute already grant an Associate Degree, the programs are limited by Act of the Legislature to preparation for vocational and technical occupations. These are not Jr. College, general academic, transfer-type institutions or programs but they are attempting to serve the needs of persons in the community. Special programs for youth who cannot meet the entrance requirements of Vocational-Technical colleges have been run to assist in upgrading those young people to fulfill the requirements. One year programs are being offered that provide a certificate of completion and satisfactory skills to enter the field of employment. These programs have basically been in the Health field and include such courses as, Licensed Practical Nursing, Medical Assisting and Certified Laboratory Technician Training. Expansion into the industrial fields including a one-year program in Machine Trades is now being planned.

One of the colleges developed a program for high school juniors and provided them with a six-week summer program which continued with weekly seminars through a portion of their senior year in high school. These young persons, in many instances not basically interested or motivated toward post-secondary education, were given an opportunity to explore post-secondary offerings and in many instances, have since graduated from high school and applied for admission to the regular program. This activity was also picked up by New Hampshire's Model City and operated at another college utilizing Model City funds. Thus we see that the utilization of Vocational Education Act money has initiated the use of other agency funds for similar kinds of programs.

SECONDARY EDUCATION

As indicated earlier, secondary education is now at the stage of development that our post-secondary program was ten years ago. Through the use of the Vocational Education Act, considerably greater interest has been developed at the secondary level. Interest is so strong, that we now have communities which previously had little concern for Vocational Education competing for designation as a Vocational Education Center even though we have no guarantee of construction funds. We feel that this change of attitude and interest is a valuable step forward.

It is our belief that Vocational Education at the secondary level should be a part of the regular comprehensive high school thus making available to all individuals in the school system a vocational program either as preparation for work or an enrichment for those college preparatory programs that need a vocational component. The major deterrent to the implementation of our twenty center plan is the lack of substantial amounts of money for construction purposes. With the tremendous growth of interest present funding if spread over the construction needs of the entire twenty regional centers, would provide no major benefit to any community. New Hampshire historically has provided little financial assistance to local school districts. With less than 10% statewide foundation assistance, this is not enough to permit the construction of the necessary regional centers even though the interest in and need for programs is great. The small amount of money provided by the Vocational Education Acts of 1963 and the Amendments of 1968 although it appears to be large in comparison with state appropriations, does not permit us to meet a substantial construction obligation. We are therefore, earmarking most of the Vocational Education Act money to assist the local school districts with operating cost and to encourage the development of new programs to meet changing needs. An increase in federal allotment that would provide substantial funds for construction purposes would be of tremendous assistance in the development of the twenty regional centers in New Hampshire.

One other aspect of our secondary program has been the interest developed in counselling and "world of work" orientation. Not only are secondary school counsellors interested but the word has spread that the world of work orientation is important in elementary grades as well. The Commissioner's exemplary project in New Hampshire was developed basically for grades 7–12. As a result of one year's activity, this program has already descended into the elementary grades as far as grade 2 and a major revision of an elementary social studies curriculum will include work orientation. These elementary teachers are excited about the possibility of this approach for their students.

New Hampshire has developed in cooperation with Maine and Vermont, two tri-state activities that will enhance Vocational Education opportunities for secondary students. One project involves work orientation and counselling grades 7–10 and the second project, just being developed, will revise Vocational Education curriculum so that students may enter and leave vocational programs in accordance with their needs. We call this individualized instruction. If these two projects are successful another step will have been taken to develop new approaches in meeting the needs of youth. It should be noted that these projects are being funded by the New England Regional Commission and the New England Center for Occupational Education. The New England School Development Council has also participated thus three additional agencies are now deeply involved in improving Vocational Education at the elementary and secondary school levels.

The utilization of local advisory committees has been most helpful. These committees have assumed leadership in getting local cooperation and have made excellent suggestions for program revision. The new flexibility in program and curriculum permitted by the Vocational Acts has also eliminated earlier opposition that had been created by mandated hours and other regulations which appeared in earlier acts.

STATE ADVISORY COUNCILS

The State Advisory Council in New Hampshire has been very active in regional and national activities. They were one of the first councils to initiate and develop a regional conference for the six New England Advisory Councils. The first year of operation they undertook their own evaluation of Vocational Education and are at the present time, involved in the evaluation of Vocational Education for the second annual report. The Division of Vocational-Technical Education has worked closely with the Advisory Council in assisting in the establishment of their state office and has provided assistance whenever asked in the development of any of their programs and activities. Committee members have been willing to appear at hearings before the N.H. General Court to lend their support to needed legislative changes. The Executive Secretary of the Council has been most helpful in working toward development of a strong vocational association within the state and has worked closely with Vocational Education staff in this endeavor. The Council is very concerned with the need for expanded public relations and the employment of a public information staff at the state level to more fully bring to the people of New Hampshire an understanding of Vocational Education at the state and national level.

ADMINISTRATIVE CHANGES AS A RESULT OF THE VOCATIONAL EDUCATION ACTS

Prior to the inception of the Vocational Education Acts, New Hampshire had generally reimbursed school districts on the basis of a percentage of teachers' salaries. This was an equal distribution of funds in accordance with the availability of monies and the demand for reimbursement. With the development of the 1968 amendments, a formula was established in accordance with the requirements taking into effect the required five factors. This has been a very time-consuming operation, but it has required the local school districts staffs to do considerably more planning when they submit their requests for funds. The formula contains judgmental factors, but it does provide a basis for giving the more needy schools more money.

It should be noted, however, that such a formula may at times deny vocational education to youth in a given community. A relatively wealthy school district which may not have much interest in vocational education could be denied funds because of their wealth when such funds might be used to initiate a program and thereby bring forcibly to the community's attention the need for such vocational education from their own budget. This has not been a major factor, but it does point out the fallacy of trying to force all communities to abide by the same regulations or all states to follow a similar pattern.

The Vocational Education Act has permitted—yes, forced—the expansion of the state office staff. We have been unable to secure additional staff except through the utilization of 100% Federal monies. Without this capability and the utilization of overall statewide matching, it would have been impossible to administer the Vocational Education Acts. It is recognized that funds used in this manner decreases the amount made available to local school districts, but it is only through the utilization of these funds that leadership can be given to the local communities as well as to other state institutions. The statewide matching component of the 1968 Amendment has been most helpful in the administration of the Vocational Education Acts in New Hampshire.

COOPERATION IN MANPOWER TRAINING

It is our belief that the several state and Federal agencies involved in Manpower programs should have the responsibility for their particular components of the Manpower delivery system. The present Manpower Development and Training Act has worked well in New Hampshire within the limits of funds available. A close and generally cooperative relationship exists between the Department of Employment Security and the Vocational Education Division. It has been difficult at times for those of us in the states to attempt to meet the needs of persons within the state, only to find that, through the creation of a new federal program, funds have been siphoned off for other purposes. Frequently this has involved new agencies in vocational training when vocational education had programs in operation or could establish such programs but had insufficient funds for full implementation. There is no desire on the part of this individual in his position to detract from the responsibility and importance of other agencies.

He would, however, like to have available for the vocational education program in the state those funds that are provided through federal Acts for the provision of training. It is difficult to establish programs when all that can be provided is the educational component and other agencies are providing pay for participation. It is equally disheartening to see non-educational agencies attempt to provide vocational training without proper coordination with on-going or existing programs.

One of our local superintendents recently refused to become involved in a training program because of the multitude of administrative details that were created by several different agencies approaching him to provide vocational training. If the training component could have been in one agency, this situation could have been substantially alleviated.

It is hoped that if H.R. 7429 is passed, strong emphasis will be placed on the promotion and encouragement of coordination between programs and agencies and that this will not promote competition for the funded dollars merely to establish programs rather than to serve the needs of youth and adults. I would hope that the present close working relationship between secondary, post-secondary, and adult components of vocational education would be strengthened under the Act. If vocational education is to meet the needs of all youth and adults, then a continuum of program K through grade 14 on through adult education is essential. This can best be done through one central vocational agency.

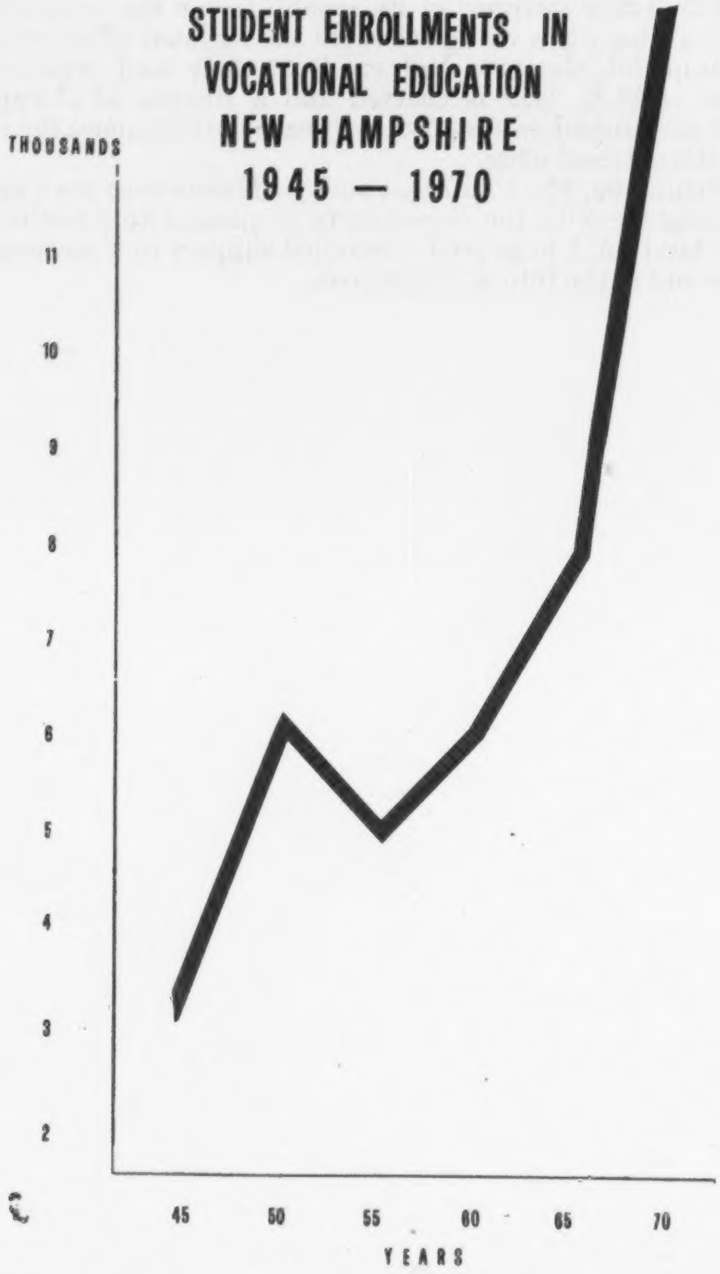
UNITED STATES OFFICE OF EDUCATION LEADERSHIP

We have been very pleased with the cooperative relationship that has been developed between our state agency and the regional office here in Boston. The Director of the Adult, Vocational and Technical Education and his staff have been most helpful in meeting every request for assistance that has been forwarded to them from our office. We are, however, severely disturbed at the loss of 50% of the regional staff specifically employed for vocational education. The Boston staff has dropped from 4 program officers to 2 during the past year. Thus, we now have a director and 2 program officers who must answer the specialized questions of all of the vocational staff in our state office. This is especially critical when you consider that in small states such as ours, we have only one person in any respective field. If our consultant in agriculture needs assistance, he has no other consultant in our state office to discuss his problems with. He has no one at the regional level to discuss his problems with other than a person assigned to the field of agriculture, and there is no office staff in Washington to answer his call.

In large states where there may be several consultants in the field of agriculture, this problem may be less critical; but, it is our feeling here in New England that we need a substantial regional staff to provide the kind of assistance that our state staff may request. This example could be repeated for all of the vocational areas as well as in Cooperative Education, Consumer and Homemaking, Disadvantaged and Handicapped, etc.

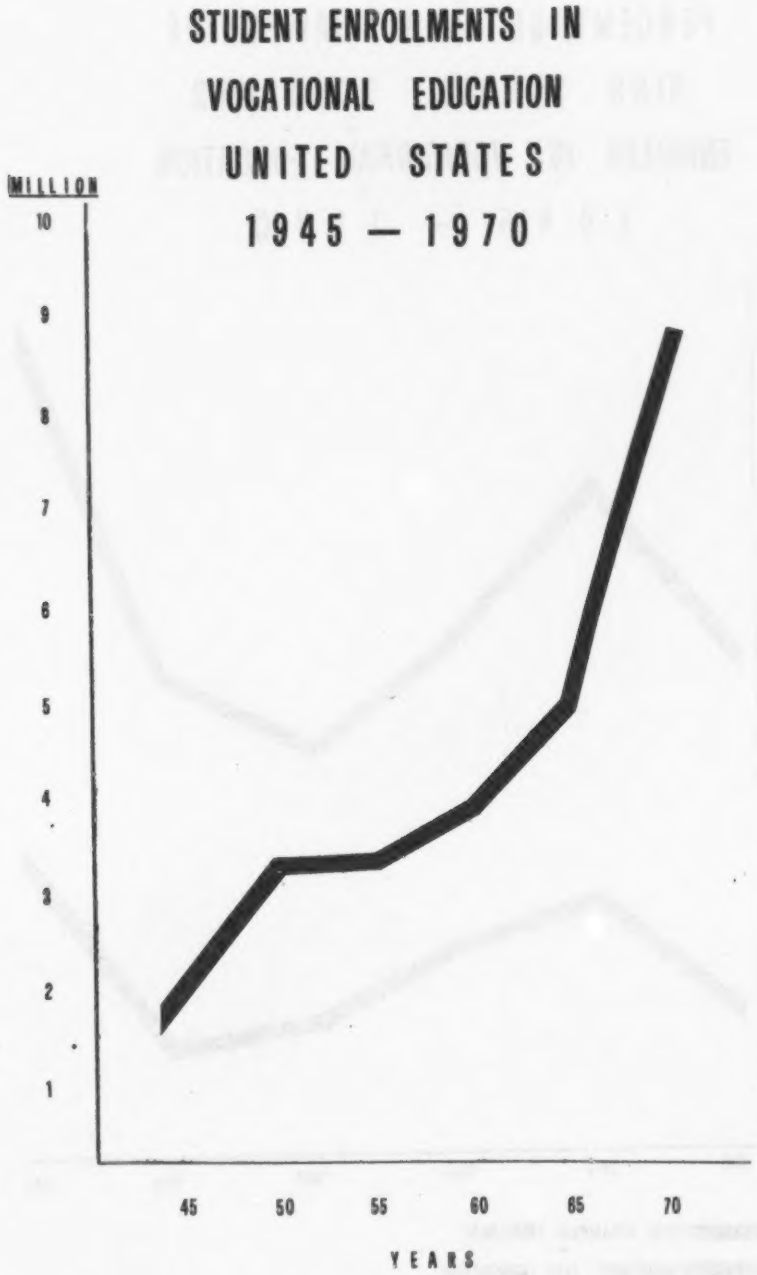
During my 21 years of experience in Vocational Education, I have seen our U.S. Office stripped of its capabilities in the vocational field and just at a time when we had thought the regional offices were going to be meaningful, they too had much of their staff removed. It is hoped that if H.R. 7429 is enacted and a Bureau of Occupational Education established, every effort will be made to expand the regional as well as the national office.

May I thank you, Mr. Chairman and the Members of the Committee for providing me with the opportunity to present this testimony for your consideration. I urge your continued support in Vocational Education now and in the future. Thank you.

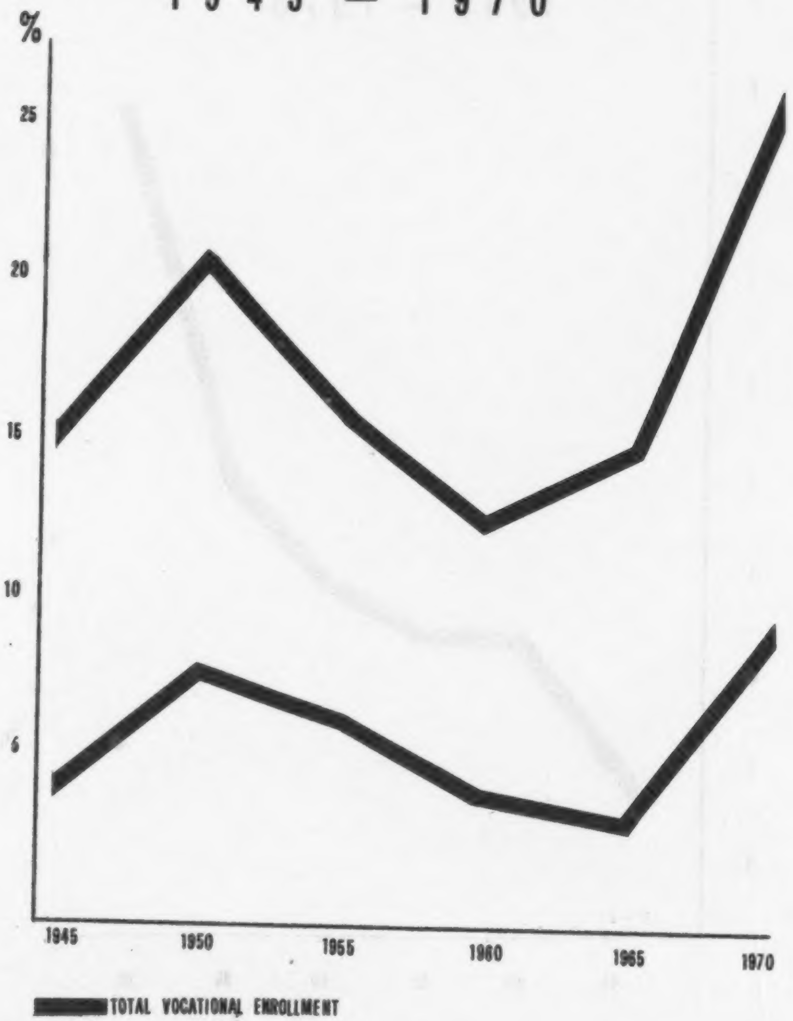


STUDENT ENROLLMENTS IN VOCATIONAL EDUCATION
NEW HAMPSHIRE
1945 — 1970

STUDENT ENROLLMENTS IN VOCATIONAL EDUCATION UNITED STATES 1945 — 1970



PERCENTAGE NEW HAMPSHIRE
HIGH SCHOOL STUDENTS
ENROLLED IN VOCATIONAL EDUCATION
1945 — 1970

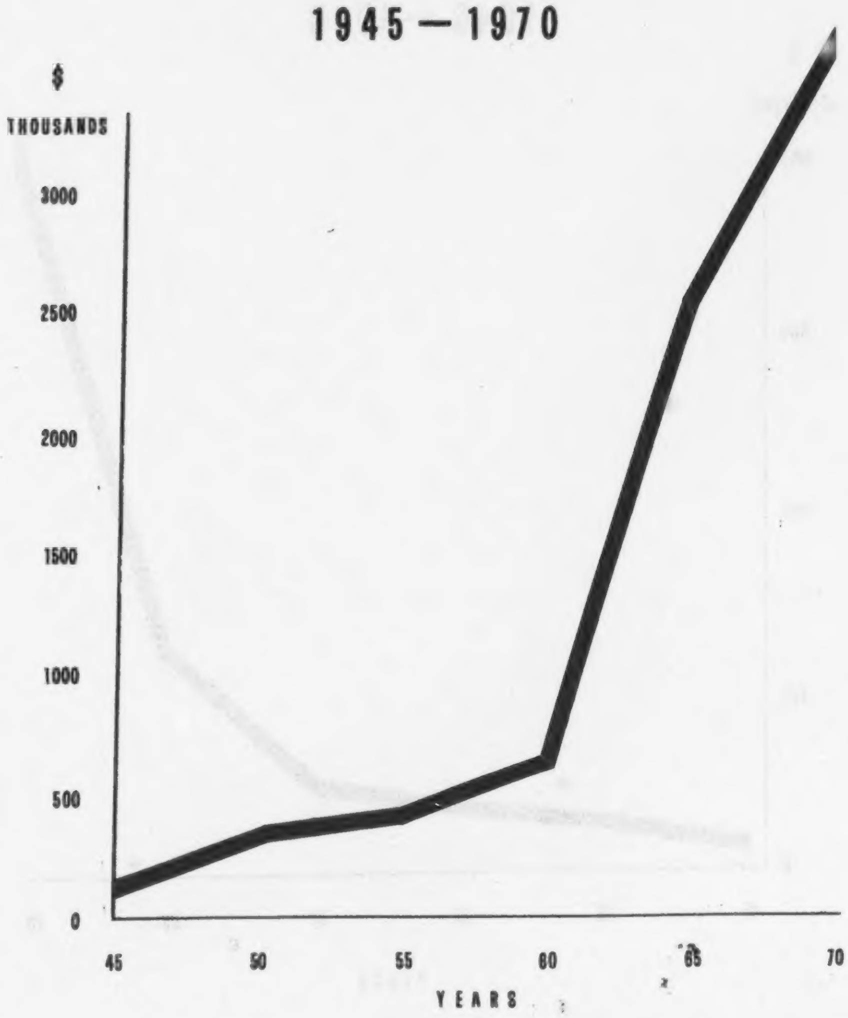


NEW HAMPSHIRE INVESTMENT

(LOCAL—STATE—FEDERAL)

IN VOCATIONAL EDUCATION

1945—1970

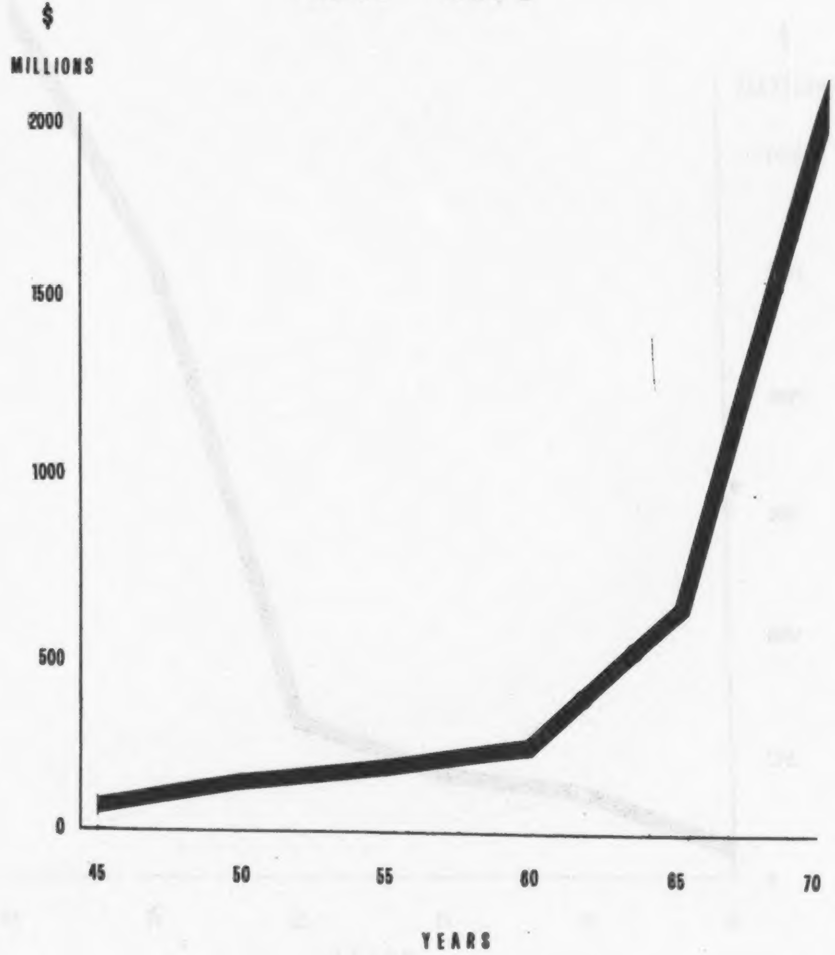


UNITED STATES INVESTMENT

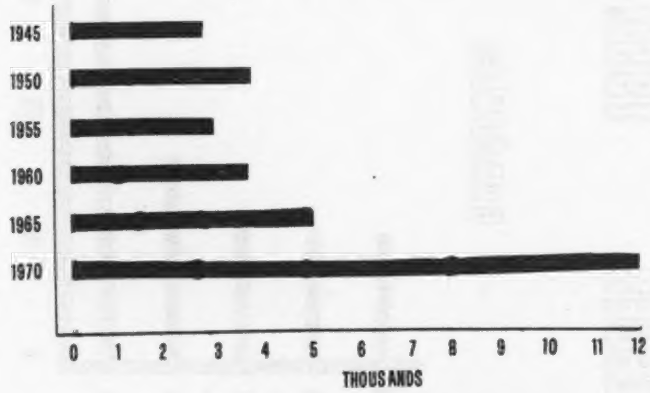
(LOCAL — STATE — FEDERAL)

IN VOCATIONAL EDUCATION

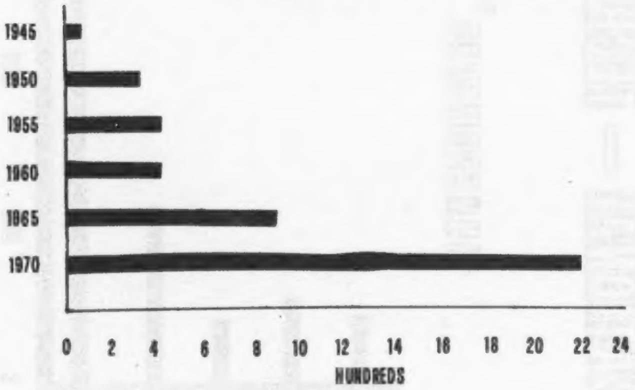
1945 — 1970



NEW HAMPSHIRE HIGH SCHOOL ENROLLMENTS IN VOCATIONAL EDUCATION 1945 — 1970

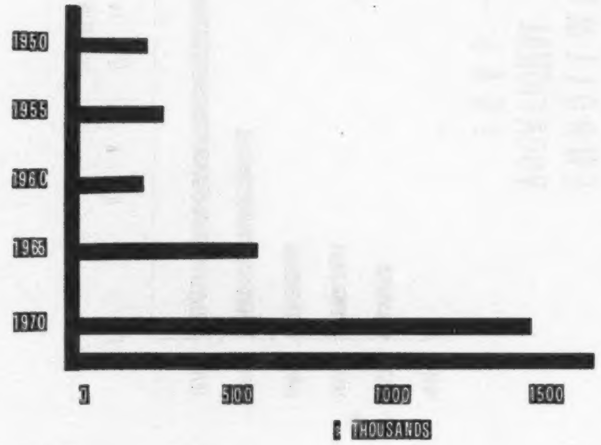


NEW HAMPSHIRE POST-SECONDARY ENROLLMENTS IN VOCATIONAL EDUCATION 1945 — 1970

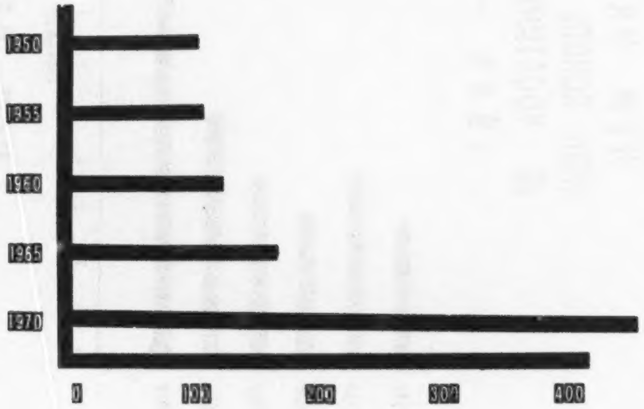


NEW HAMPSHIRE TECHNICAL INSTITUTE AND VOCATIONAL—TECHNICAL COLLEGES 1950—1970

INVESTMENTS*



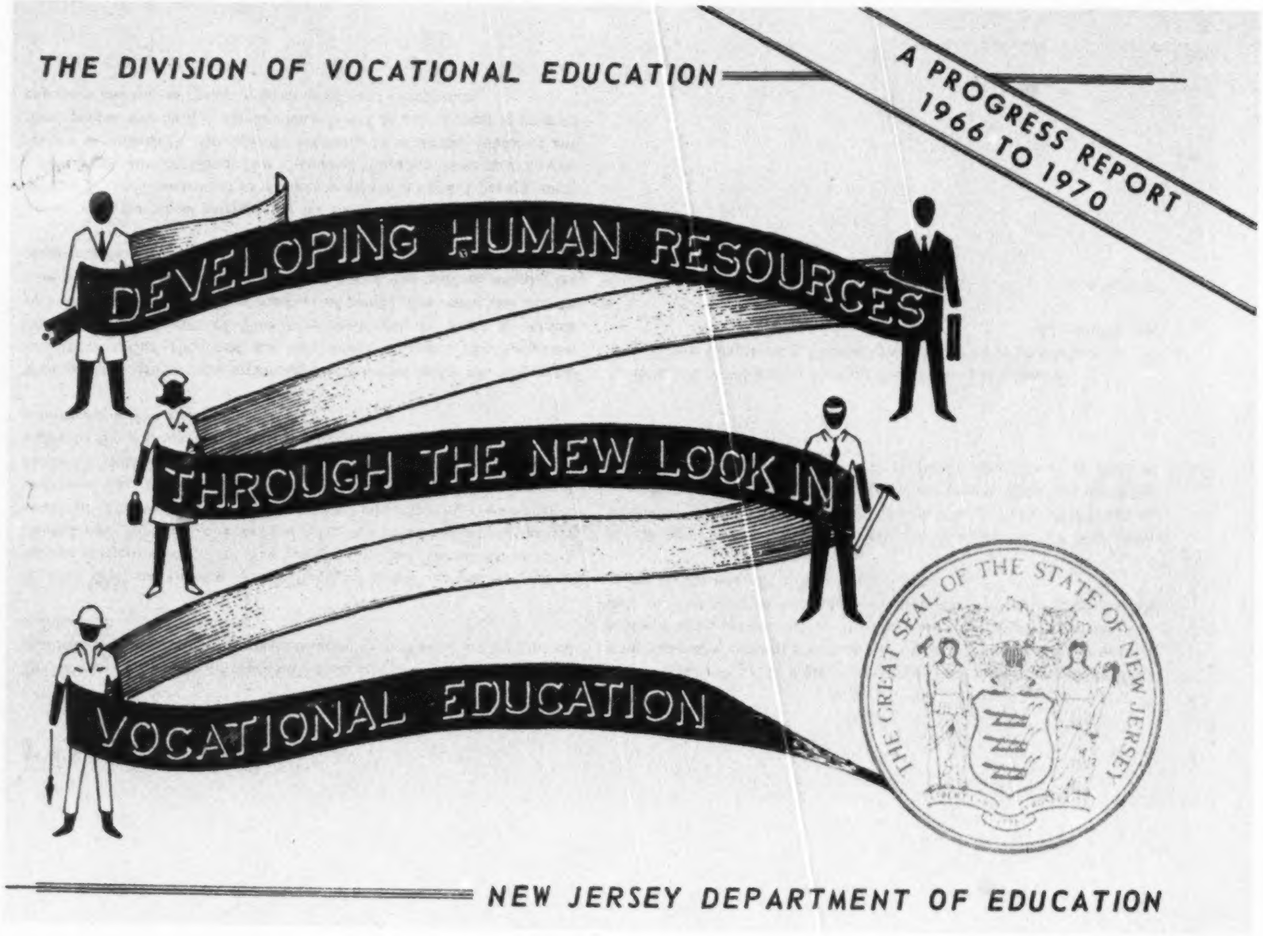
GRADUATES



* N.H. NET APPROPRIATIONS

NEW JERSEY

State Director—Robert M. Worthington



THE DIVISION OF VOCATIONAL EDUCATION

A PROGRESS REPORT
1966 TO 1970

DEVELOPING HUMAN RESOURCES
THROUGH THE NEW LOOK IN
VOCATIONAL EDUCATION

NEW JERSEY DEPARTMENT OF EDUCATION

FOREWORD

The New Jersey Division of Vocational Education is proud to present this five year record of progress in vocational education to the New Jersey State Board of Education.

In June 1965, the Division of Vocational Education received its greatest support for growth when the New Jersey Vocational Educational Advisory Council was established. That original Advisory Council became increasingly aware of the needs to expand vocational education in a coordinated, systematic manner. They brought this to the attention of former Governor Richard J. Hughes, and those initial efforts of the Council have contributed highly to the position of prominence vocational education has taken in the mainstream of New Jersey education.

With dramatic growth and accomplishments forged under the Vocational Education Act of 1963 and the first Advisory Council, the Vocational Education Amendments of 1968 have challenged the states to provide vocational programs to greater numbers of people, the young and old, the college bound as well as the non-college bound, the handicapped and the disadvantaged.

To assist in the job of carrying out the mandates of P.L.90-76, Governor William T. Cahill, authorized by a federal provision in the Act, has appointed a New Jersey Advisory Council for Vocational Education. Made up of a cross-section of individuals with specific relevancy to vocational education and those people who need it, the Council will seek to give impetus to program expansion and help safeguard program quality and effectiveness.

What is past is always prologue to the future. It is only a brief glimpse of the many areas of vocational education and the progress that has been made in a relatively short period of time. It is our hope that this document will illustrate the fact that the vocational education can serve as the means to life success for the majority of New Jersey citizens.

As the New Jersey Division of Vocational Education and the New Jersey Vocational Education Advisory Council look forward to the 1970's, they do so with a great feeling of anticipation and excitement. Ahead lies one of the most challenging decades ever facing vocational education at all levels of importance and involvement.

—Robert M. Worthington, Assistant Commissioner of Education
—J. William Helmstaedter, Chairman, New Jersey Vocational Education Advisory Council

June 30, 1970

NEW JERSEY ADVISORY COUNCIL ON VOCATIONAL EDUCATION

Members of the New Jersey Advisory Council on Vocational Education are :(seated, left to right) Richard K. Greenfield, Burr D. Coe, Victor A. Cranston, Arnold K. Weber, J. William Helstaedter Chairman, Beatrice Holderman and Rutherford E. Lockette; (standing, left to right) Samuel F. Guidotti, Morris F. Epps, Robert M. Worthington, Assistant Commisioner of Education, James R. Tobin, Kenneth R. Clay, Charles F. Reilly, Grant Tate, Jr., John E. McLoughlin and Joseph P. Barry. (Absent were:) J. Marvin Feldman, Charles Marciante and Robert G. Pecka.

AN OVERVIEW OF VOCATIONAL-TECHNICAL EDUCATION IN NEW JERSEY

Since 1966, the progress made in providing vocational-technical education to all segments of New Jersey's population has certainly been dramatic. Following the philosophy that education is a life-long process, the Division of Vocational Education has expanded, created and improved vocational-technical instructional programs, facilities and services at all levels from pre-school experiences through the adult lives of people. Perhaps this progress can best be illustrated by reflecting some of the increases in the number of people served by various programs since 1966.

In adult vocational-technical education alone, enrollments have increased from 20,000 students in 1966 to 44,000 students in 1969. In cooperative education programs, enrollments increased 9,300 and in all levels of distributive education, 6,100 students. Technical education now serves nearly 9,500 students as opposed to 8,000 in 1966. Special non-English speaking classes now serve 7,500 students who heretofore did not have this instruction available. Programs in Technology for Children have increased from the original 9 schools in 1966 to serving 2,400 children in 28 school districts. Introduction to Vocations, offered at the junior high school level, has increased the number of programs from 14 to over 100 and the number of students from 300 to 2,500.

Similar strides have been made in serving more students than ever before in the various skill centers, such as the Newark Skill Center, located throughout New Jersey in cooperation with the Division of Employment Security. The Residential Manpower Center, Edison, New Jersey, created this year in conjunction with the Division of Employment Security, serves 300 enrollees in 12 occupational areas.

Special needs programs, non-existent in 1966 and particularly appropriate to handicapped and disadvantaged students, now serve nearly 1,000 students.

High School equivalency is being sought by 1,300 adults in 10 WIN (Work Incentive) Centers in 9 New Jersey counties. Comprehensive vocational-technical programs have been established in a network of 30 area and regional vocational-technical schools. Vocational education has been made readily available to many people who need it.

Because the amount of Federal and state funds allocated to vocational-technical education increased over the past three years, provision for the construction of vocational-technical education facilities has enabled nearly 13,000 additional students to avail themselves of vocational education in new facilities.

The sampling of progress in New Jersey vocational-technical education represented in this overview is indicative of the value of a planned approach to vocational education within a state. The New Jersey Division of Vocational Education operates within the guidelines of a formulated state plan for vocational education which has been approved by the United States Office of Education and a formulated master plan for vocational education in New Jersey through 1980.

INSTRUCTIONAL SERVICES

ADULT AND CONTINUING EDUCATION

There are approximately 250 school districts in New Jersey that have designed and are implementing structured programs in adult and continuing education. Over 400,000 adult learners are presently engaged in widely diversified learning experiences which were heretofore unavailable to them.

Some of the most exemplary and creative programs are the sixteen Learning Centers, both maxi-and mini-centers, which have been established since the fall of 1968. These "experiential complexes" provide multi-media, multi-sensory and multi-level laboratory approaches to meaningful learning opportunities. The facilities are equipped with modern, sophisticated instructional "hardware," extensive selections of audio-visual equipment and diversified programmed materials or "software." Such an array of instructional materials better facilitates the writing of prescriptions for individualized instruction. Emphasis is on individual and small group instruction for the imparting of knowledge, and for using and developing the wealth of experiences the adult learners bring with them to the learning situation.

Instruction is available from 9:00 in the morning until 10:00 in the evening. Thus the flexible extended hours allow students to avail themselves of the opportunity to learn without reference to rigid, formalized class schedules. Time spent during the course of the week is based upon individual convenience, since each person works at his own rate of speed.

The program operations synthesize a maze of curricular offerings which cut across narrow course limits. Because of well-balanced curricula, adults are assisted in their endeavors to function more effectively as parents, more skillful and versatile members of the labor force, contributing members of today's complex society, and more diligent and economic homemakers. The many intertwined goals enhance not only the self-knowledge and esteem of the adult learners, but assist them in their understanding of and ability to grapple with the complexities of everyday living.

Because of the unique characteristics and psychology of adult learners, major thrusts have been placed on providing adequate guidance and counseling services to meet their special needs. Testing services and analyses of the total background of the learners enable them to be placed at instructional levels appropriate to their abilities.

The State of New Jersey receives approximately 14,000 aliens each year for permanent residency. This large immigration clearly indicates the vital need for providing instruction in English as a second language. There are over 7,500 non-English speaking persons enrolled in adult programs in an effort to acquire an adequate command of needed communication skills.

Learning, without a doubt,

is a life-long continuing process

ADULT VOCATIONAL-TECHNICAL EDUCATION

Adult vocational-technical education is designed to provide training or retraining to insure stability or advancement in employment of persons who already entered the labor market and who are either employed or who are seeking employment.

Financial aid is provided through state and federal sources. Programs are conducted within the framework of the State Plan for Vocational and technical education and are operated on a full and part-time basis to serve the needs of labor and industry. Adult vocational-technical education encompasses all program areas in vocational education and is rapidly becoming an integral part of the adult school programs.

Areas of responsibility include: developing and providing consultative services; providing assistance and coordination in the development of facilities and programs; disseminating pertinent public information and statistics; and providing assistance and consultative services in curriculum development, with particular emphasis on programs for the handicapped and disadvantaged adult.

Assistance is provided for the initiation, development, and maintenance of leadership and teacher education programs, along with the development and initiation of pertinent research.

Forty-seven school districts operated approved adult vocational and technical programs in 1969. In 1968 43,832 adults were served in approved adult vocational education programs as opposed to 17,672 in 1958.

VINELAND HIGH SCHOOL CHAPTER
FUTURE FARMERS OF AMERICA
CROP DEMONSTRATION
in Cooperation with G.L.F.
PEPPER VARIETY TEST

AGRICULTURAL EDUCATION

New Jersey, "the Garden State," occupies a leading position in agricultural endeavors. Our farm lands return the highest income per acre in the nation; we rate third in gross income per farm, and sixth in net income. New Jersey boasts a $1.7 billion industry in food processing-sixth in the nation.

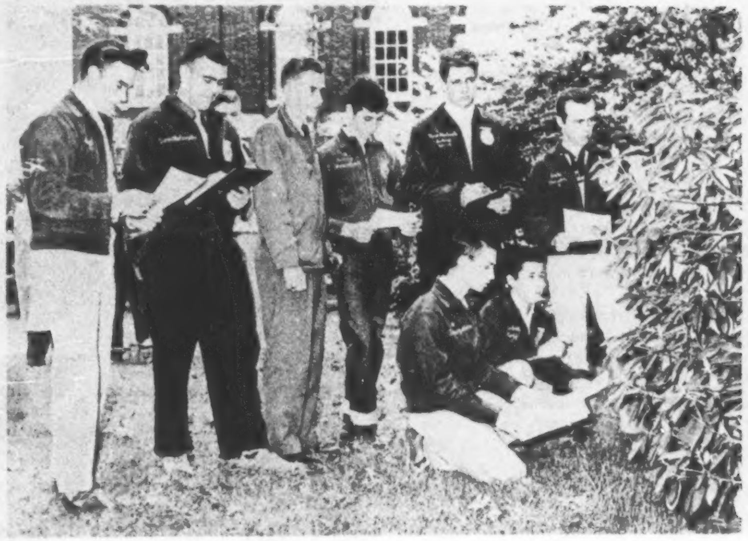
Agricultural education in New Jersey is designed to prepare students for occupations dealing with the conservation, production, processing, and distribution of agricultural products and services. Programs in the high school include the development of basic skills and knowledge necessary to gain employment in one of the many agricultural occupations. Advanced agricultural education programs at the post-high school level include the development of acquired skills, learning of new skills, and the preparation of agricultural consultants and teachers.

In New Jersey, numerous opportunities exist for skilled workers in agriculture. This is particulary true in the fields of agri-business, horticulture and floriculture.

Less than ten percent of the secondary schools in the state now offer programs in agricultural education. Increased availability of this curriculum to more students interested in agriculture could easily double the enrollment within the next two years. A continuing need in agricultural education has been sufficient teaching staff and adequate facilities.

The need for agricultural education in the future will continue. For example, New Jersey and many of its municipalities are sponsoring the Green Acres

Program while the Federal government is similarly engaged in developing and maintaining our national parks to provide recreation for our rapidly expanding population. Such investments require trained recreational conservationists to service these areas. The emergence of these and other new and expanded employment opportunities will necessitate related agricultural education programs in our schools.



FUTURE BUSINESS LEADERS
NEW JERSEY
STATE CHAPTER
OF AMERICA

BUSINESS EDUCATION

Business education is a vocational education program designed to prepare students for office work. The program includes all the required general education courses such as English, mathematics, the sciences, and their electives. In addition, each student follows an individual sequence in office education and related courses which lead to vocational competency and advancement in office careers.

As a result of the Vocational Education Act of 1963 and the subsequent Amendments of 1968, business education programs throughout the State of New Jersey were expanded, improved, and assumed a new identity as they have been included in the vocational education family. In addition, the number of cooperative office education programs was significantly increased.

Business education classes today serve nearly all secondary school students in various ways. Nearly 150 cooperative office education programs are in existence in 1970 and the number of business teachers nears 2,000. Pilot and

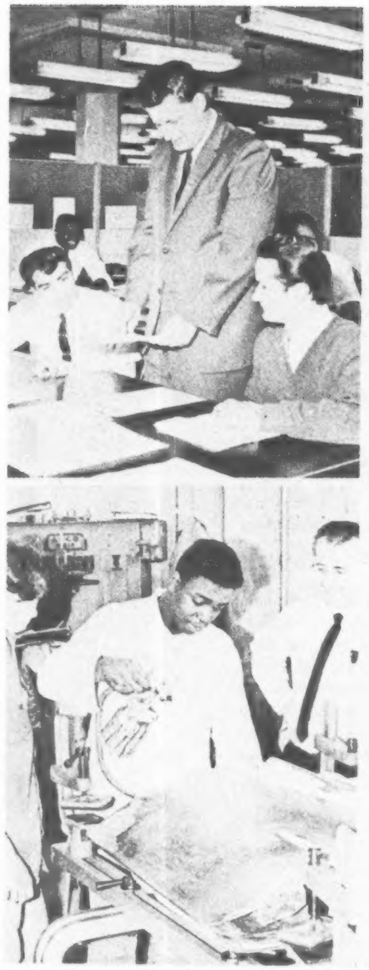
model programs completed through use of Federal and state funds vastly strengthened entry level occupational skills of students in the areas of stenography, bookkeeping, secretarial and clerical practice, business machine operation, modern duplication methods and electronic data processing. Noteworthy research studies have been completed involving stenography, office practice, and electronic data processing. In addition, New Jersey participated in a national business education curriculum development project involving block-time office instruction.

BUSINESS EDUCATION - - TOMORROW

Through curriculum development activities, there will be continual updating and revising of instructional patterns and instructional methodologies. Programs will be designed to fit the changing demands and requirements of students and business, changing occupational patterns, and advanced technologies.

These demands will be realized through:

. . . expanded vocational facilities and equipment provided by secondary schools, post-high schools, vocational schools, technical institutes, private business schools and colleges,
. . . expanded teacher education programs embracing the new technologies.
. . . expanded secondary school offerings providing more realistic learning experiences through the use of simulated work environments, integration of subject matter concepts, and cooperative occupational programs.
. . . increased involvement of business and industry in our educational programs.
. . . increased emphasis on the development of youth leadership activities.



COOPERATIVE VOCATIONAL-EDUCATION PROGRAMS

Cooperative vocational education is a program designed for persons at least sixteen years of age, who through a cooperative arrangement between the school and employers, alternate study in school with a job for wages in any occupational field.

These two experiences must be planned and supervised by the school and employers so that each contributes to the students' employability and education.

Work periods and school attendance may be on alternate half days, full days, weeks or other periods of time fulfilling the cooperative program requirements.

The New Jersey cooperative education programs have grown very rapidly since 1963. Throughout the 69-70 school year there were 520 approved programs enrolling 8,800 students.

New Jersey was one of the first states to recognize the need for varying types of cooperative programs. At the present time there are cooperative programs in:

Agricultural Occupations
Office Occupations
Distributive Occupations
Home Economics Occupations
Technical Occupations
Health Occupations
Industrial Occupations

Under these programs, the following areas may be included:

Orientation to vocations, tailored to specific pupil needs.

Occupational conditioning in which students meet realistic job situations through in-school experiences.

Training in a variety of simple and complex skills appropriate to individual pupil abilities.

As these work experience programs continue to grow, it is anticipated that the need for better pre-vocational training will become apparent to both educators and personnel in business and industry. Efforts are already underway to expand vocational preparation, for pupils with special needs, such as the handicapped and disadvantaged.

DISTRIBUTIVE EDUCATION

Distributive education is a vocational instructional program designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation or an occupation requiring competency in one or more of the marketing functions. These occupations are found in such businesses as retailing, wholesaling, finance, insurance, real estate, transportation, utilities, and communications. Instruction is offered in marketing, merchandising, related management, and personal development.

The primary goal of distributive education is to prepare students for gainful employment and advancement in distributive occupations. This goal is being accomplished through public school programs at the high school, post-high school and adult school levels.

Most New Jersey distributive education programs are cooperative in nature. This means that the student spends part of the school day taking the regular classes required for graduation plus job-related instruction in DE. The other part of the school day is occupied with supervised experience on the job.

Local chapters of the Distributive Education Clubs of America (DECA) form one of the most active DECA state chapters in the United States. Through DECA, students have an opportunity to develop socially and competitively through local, regional, state and national activities.

Recognizing the increased need for more workers with distributive skills, a dramatically expanded growth in distributive education programs at all levels is anticipated.

TRICK or
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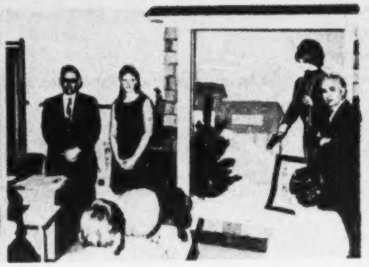


FACILITY CONSTRUCTION

Facility construction is a complex and time consuming operation involving a great deal of planning.

One of the most important features of the Vocational Education Act of 1963 was the incorporation of construction funds for area vocational education facilities. The concept of the area vocational education schools (districts combining to provide vocational education on an area basis) was established by the National Defense Act in 1958, but no financial assistance for construction was included at that time.

Individual school districts or attendance centers cannot always offer a diversified vocational program. They may lack sufficient number of students and/or adequate financial resources. An area vocational school can many times minimize these difficulties by serving a large geographical area. An area vocational school can more readily provide up-to-date facilities, a broader curricula and special personnel. As set forth in the Vocational Education Act of 1963, state and federal financial assistance is available for the construction of area vocational technical schools and facilities. This can amount to up to 50 percent of the cost of construction, initial equipment, site development and architects' fees which must be matched by local funds.

Numerous purposes are behind the funding of area vocational schools; however, the main motivating force is to make available quality vocational education where a genuine need exists and where there is an interest on the part of the citizens in the area.

To be assured of proper use of both state and federal funds, certain qualifications and guidelines have been established concerning the determination of needs, programs and facilities.

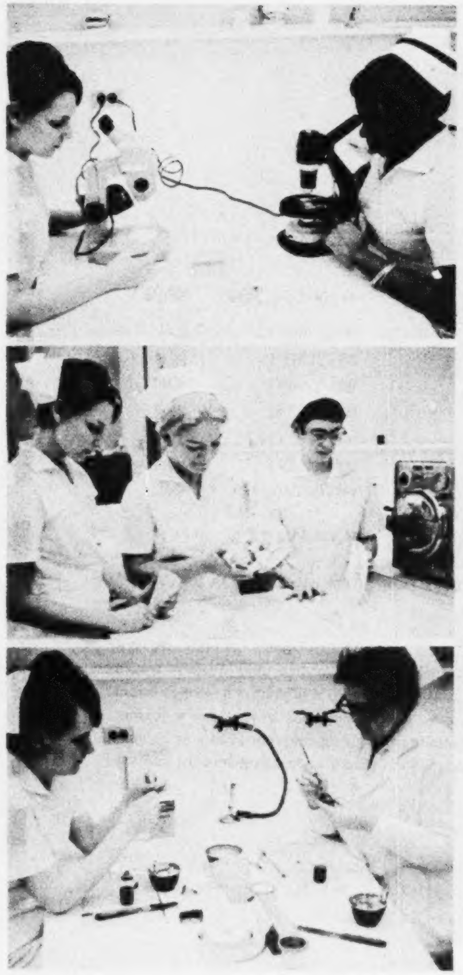
"Area vocational education school" means any public school or public institution, the facilities of which can be constructed with federal funds under the provision of the Vocational Education Act of 1963. This may include only:

1. A specialized high school used exclusively or principally for the provision of vocational education to persons who are available for full time study in preparation for entering the labor market.
2. The department of a high school exclusively or principally used for providing vocational education in no less than five different occupational fields to persons who are available for full time study in preparation for entering the labor market.
3. A technical or vocational school used exclusively or principally for the provision of vocational education to persons who have completed or left high school and who are available for full time study in preparation for entering the labor market.
4. The department or division of a junior college or community college or university which, under the supervision of the State Board, provides vocational education in no less than five different occupational fields leading to immediate employment but not leading to a baccalaureate degree.

An area vocational education school shall be available to all residents of the state or an area of the state designed and approved by the State Board. In the case of a technical or vocational school, or a department or division of a junior college or community college or university, such school must admit as regular students both persons who have completed high school and persons who have left high school.

AREA VOCATIONAL TECHNICAL SCHOOL CONSTRUCTION

Fiscal Year	Total Project Cost	Capacity	Square Feet
1965	$ 13,392,803.00	2960	352,465
1966	1,833.281.00	1400	132,441
1967	14.626,164.00	3908	389,923
1968	34,137,101.00	6478	1,010,205
1969	3,696,719.00	1280	133,379
1970	10,531,353.00	1438	231,600
1971	24,508,071.00	5460	757,600
Totals	$106,725,3,007.613	23,104	3,007,613



HEALTH OCCUPATIONS

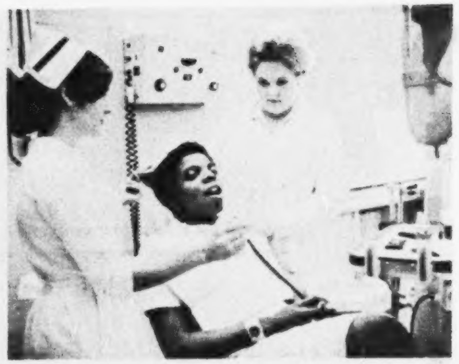
Health occupations education prepares high school students and adults for entry level employment in the health field. Occupational areas of training include practical nursing, nurse aide/orderly, dental and medical assistant, and hospital service workers. Wherever a health occupations program is offered, the student has, as a part of the educational program, a clinical affiliation with local health agencies (hospitals, clinics, medical and dental offices). This experience is supervised by the school instructor to insure that the experiences in the clinical area are educationally oriented.

In 1965-66, there were 1717 students served in health occupations educational programs in New Jersey. By 1968-69 enrollments increased to 3092. The important reasons for this increase were:

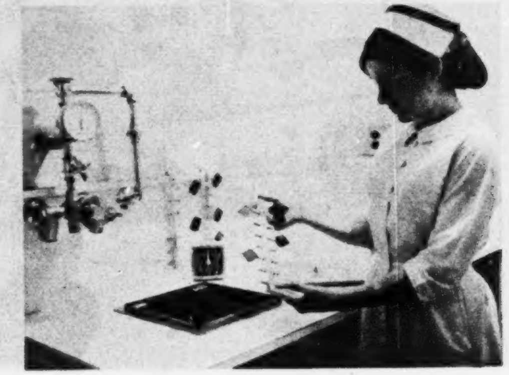
1. Ten practical nursing programs now include high school students at the 12th grade level;

2. Additional programs are now available for high school students, such as dental assistant, rehabilitation aide and hospital service worker.

In addition, the number of adults enrolled in health occupations educational programs has continued to increase. Medicare legislation caused a sharp increase in enrollment in evening supplementary program for practical nurses. In response to this same legislation, New Jersey now has exemplary programs to prepare practical nurses licensed by waiver to become eligible for license by examination.



The need for workers in health occupations will continue to grow because the responsibilities for health service have been enlarged to include preventive and rehabilitative medicine. Meeting these responsibilities calls for the development of new Health Occupations programs which will meet the needs of today's students and increase the quantity and quality of health care for the citizens of New Jersey.



HOME ECONOMICS

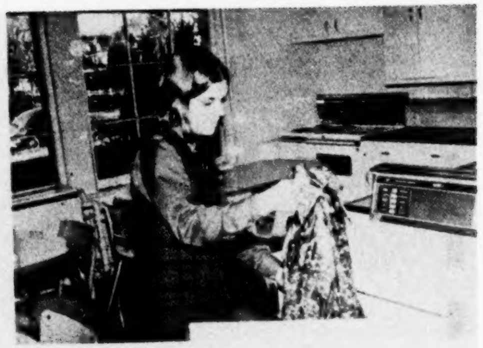
Home economics education has two major aspects:

- the preparation of elementary, junior and senior high school students, and adults for successful and satisfying home and family living, and
- the preparation for occupations which utilize home economics, skills, knowledge, and appreciations.

Home economics programs in the schools may include:

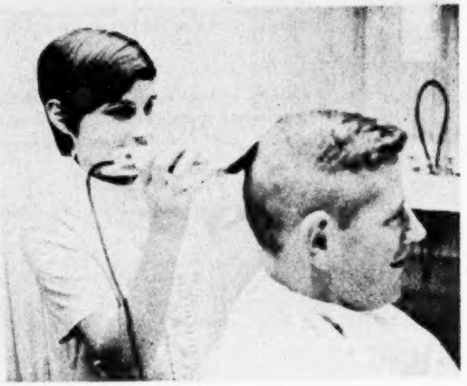
Child care and development
Clothing and personal appearance
Consumer education
Family health and home safety
Foods and nutrition
Home management
Housing, equipment, and home furnishing
Personal and family economics
Personal, family and community relationships
Textiles

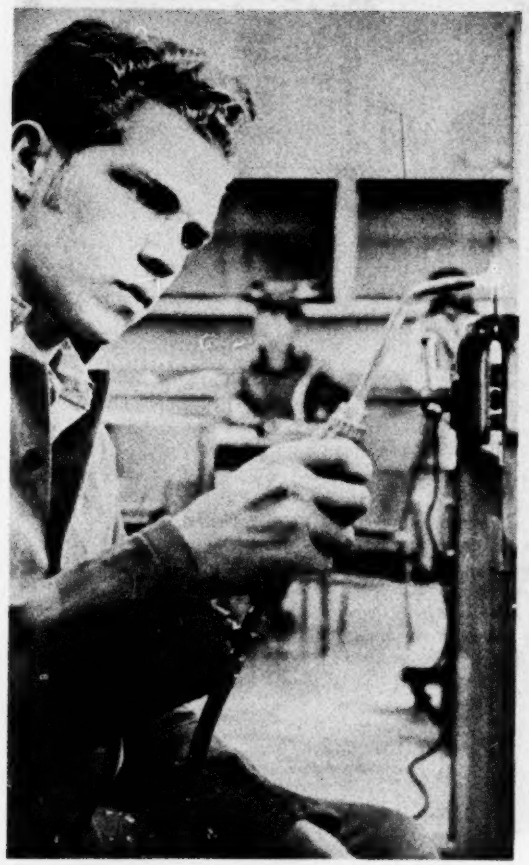
Increased emphasis on comprehensive home economics programs has stimulated the broadening of programs to meet the needs of more of our students.



Of special interest is the "HEDE" Program which incorporates in an occupational mix those commonalities of instruction which exist between home economics and distributive education. The program is designed to stimulate interests and understandings of career opportunities in the fields of home economics and distributive education, and to provide instruction for the development of personal characteristics which are necessary for success on the job. Cooperative work experience, job related instruction, and team teaching are integral aspects of the program.

Because of the growth of home economics programs at the elementary, junior high school, senior high school, and adult education levels, more professional personnel are needed. At present, Rutgers, the State University, Glassboro State College, Montclair State College, Douglass College and the College of Saint Elizabeth are preparing home economics teachers in New Jersey.





INDUSTRIAL ARTS

This program is designed to familiarize students with operations and procedures of modern industry.

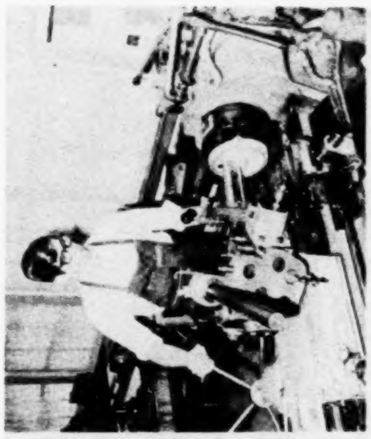
Industrial arts provides exploratory experiences with a wide range of materials, tools, processes, products, and occupations. Emphasis is placed upon developing an occupational awareness toward the world of work that will contribute to successful living.

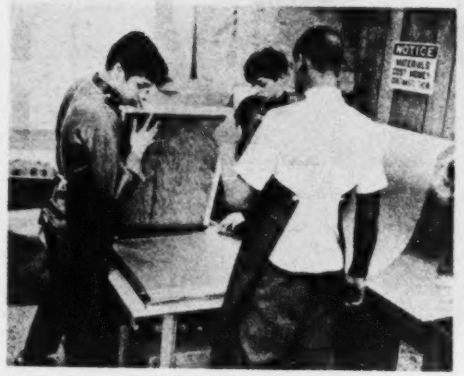
Through classroom study and practical work experiences in school, students are oriented to the industrial aspects of our culture that will enable them to select consumer goods more intelligently, to be more efficient workers, to use leisure time more effectively, and to act more wisely with regard to safety in an industrial setting.

A trend in industrial arts education at the secondary level is a shift in emphasis from a broad general industrial concept to a program that offers depth in occupational families, such as drafting, electronics, and metal working. Due to the many technological advancements in today's industry, recent programs in industrial arts require shops with greater floor space, more industrial power and hand tools, and personnel with a greater depth of industrial experiences and education.

At the present time, there are 705 industrial arts programs in schools throughout the state. The following is a breakdown of program offerings:

255 Elementary Industrial Arts (24,033 boys and girls)
172 Junior High School Industrial Arts (142,468 boys and girls)
278 Senior High School Industrial Arts (69,620 boys and girls)





SPECIAL NEEDS

The Congress has mandated that particular attention be given to persons with special needs. This has resulted in the development of special programs and services.

The program is particularly appropriate for the handicapped and disadvantaged, but is not limited to these persons.

"Handicapped persons" means mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired persons who by reason of their handicapped condition cannot succeed in a regular vocational or consumer and homemaking education program designed for persons without such handicaps and who thus require special educational assistance or a modified vocational or consumer and homemaking education program.

"Disadvantaged persons" means persons who have academic socioeconomic, cultural, or other problems that prevent them from succeeding in a regular vocational education or consumer and homemaking program designed for persons without such difficulties, and who for that reason require specially designed educational programs or related services, or both in order for them to benefit from vocational education or consumer and homemaking education. The term includes persons whose needs for such programs or services result from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large, but does not include physically or mentally handicapped persons unless such persons also suffer from the handicaps described in this paragraph.

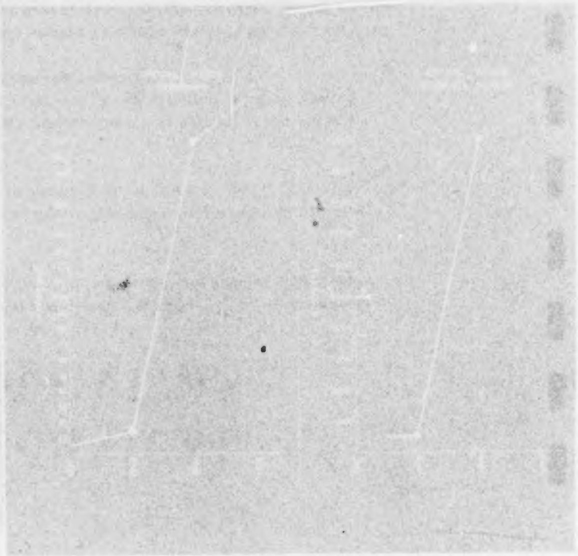
One special program is Employment Orientation where the instruction is divided into two phases:

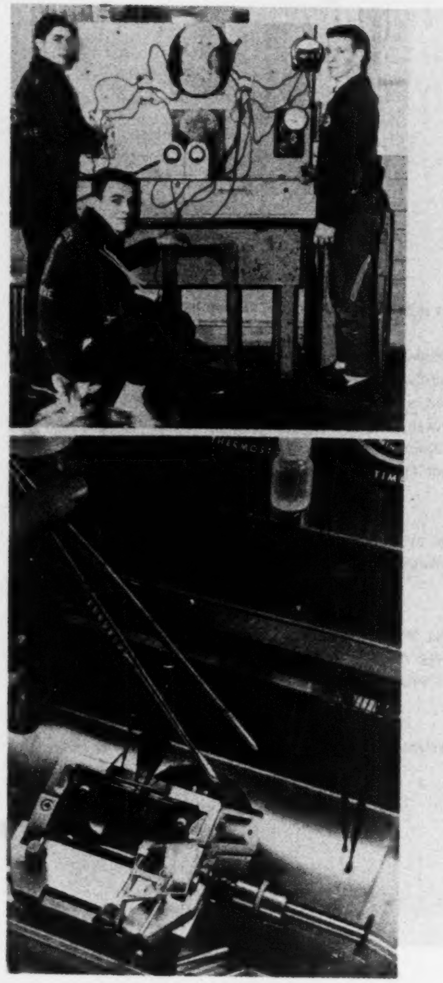
1. The simulated work phase establishes conditions as nearly like a real work situation as possible. The activity builds the student's motivation to remain in school. The atmosphere is one of work rather than study.

2. The basic skill training phase serves to prepare for entry into full or part time employment or to prepare for entry into regular vocational programs.

In order to demonstrate programs of Employment Orientation, each of nine mobile vocational units travel to approximately ten different school districts. During the regular school year they serve as many as 36 individuals at each location for a period of four to six weeks. During the summer months the various units are used to serve migrant youngsters. The training in the various units is conducted by one coordinator/instructor and one assistant.

Programs and services for special needs pupils are expected to expand greatly over the next five years.





TECHNICAL EDUCATION

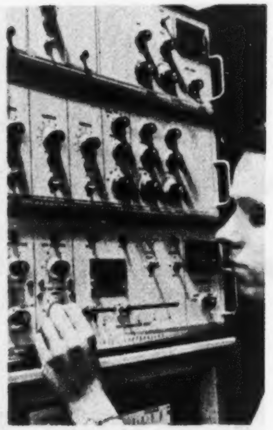
Technical education is a high school and/or post high school program that prepares a person to enter the world of work in the field of science and technology.

Through technical education, each student follows a carefully planned program of studies which leads to immediate employment or advanced education in the technical occupations.

High school students normally pursue a three year program to become technical assistants. Community college and technical institute students normally pursue a two year program to become technicians.

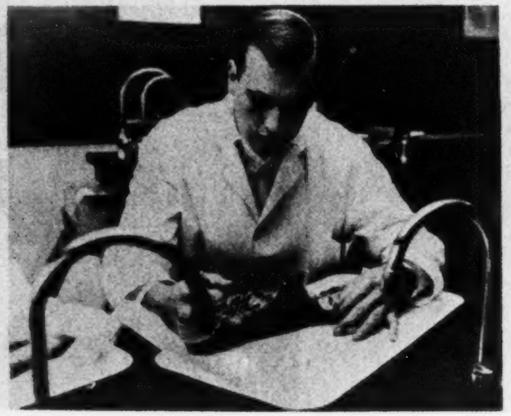
New Jersey secondary schools, technical institutes, private schools and community colleges offer instruction in the following technical fields:

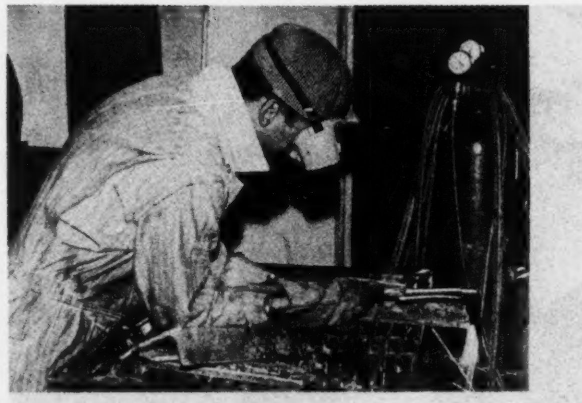
- Aeronautical and Aerospace
- Air Conditioning and Refrigeration
- Architecture and Construction
- Automotive
- Business and Office
- Chemical
- Civil Service
- Data Processing
- Drafting and Design
- Electrical and Electro-Mechanical
- Engineering
- Electronics
- Health Service
- Hotel - Motel
- Instrumentation
- Laboratory Technology
- Library
- Mechanical - Power Plant and Tool and Die
- Nuclear and Radio-logical
- Nursing
- Oceanography
- Police Science



Rapid technological developments in research and production are causing widespread changes in technical occupations. Traditional occupations are being changed through the application of electronics, instrumentation, data processing and computers with the result that many new employment opportunities are emerging. It is the consensus of specialists in the field that technical education will continue to provide a significant source of vital manpower in the decade ahead and that technical education will occupy a most important place in the total national education picture.

At the present time, the total student enrollment in technical education is approximately 9,000. By 1975, over 12,000 students are estimated to be enrolled.



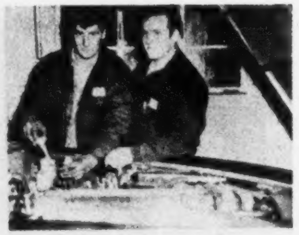


VOCATIONAL INDUSTRIAL EDUCATION

Vocational industrial education is designed to prepare skilled workers for employment in specific trades, phases of trades, or related service occupations. Programs are available for all persons who have an interest and a suitable aptitude, and wish to prepare for entry into employment. Learning by doing is emphasized and includes instruction necessary to develop the manipulative skills, technical knowledge and related information such as job attitudes, safety practices and trade and industrial occupation. Each student follows a planned sequence of classroom and laboratory experiences which lead toward beginning a career in trade, industrial, or service occupations.

Vocational industrial programs are offered in county area vocational technical schools, comprehensive high schools, and area vocational technical schools operated by regular boards of education.

Programs are also available on the secondary and post secondary level as day and evening programs.



Examples of such occupational programs available are:

- *Aeronautics
- *Air Conditioning
- *Appliance Repair
- *Auto Body Repair
- *Auto Mechanics
- *Baking
- *Carpentry
- *Commercial Art
- *Commercial Cooking
- *Cosmetology
- *Drafting
- *Electricity
- *Electronics
- *Heating
- *Machinist
- *Masonry
- *Painting and Decorating
- *Plumbing
- *Refrigeration
- *Sheet Metal
- *Welding

The demand for workers in the service and creative fields of industry, as well as electrical, mechanical, construction, and production occupations, will cause expansion of vocational industrial education at all levels.

FUTURE BUSINESS LEADERS
NEW JERSEY
STATE CHAPTER
OF AMERICA

VOCATIONAL YOUTH LEADERSHIP DEVELOPMENT

Youth leadership development offers vocational education student training in the areas of leadership, citizenship, cooperation, and career awareness through the vocationally oriented youth organizations.

New Jersey vocationally oriented youth organizations include: Distributive Education Clubs of America (DECA) for those students enrolled in distribution, sales, and marketing classes; Future Business Leaders of America (FBLA) for business education students; Future Farmers of America (FFA) for students in agriculture and ornamental horticulture; Future Homemakers of America (FHA) for students enrolled in home economics and consumer education; and the Vocational Industrial Clubs of America (VICA) for students in trade, industrial, technical, and health occupations.

VOCATIONAL INDUSTRIAL CLUBS
OF AMERICA

FUTURE FARMERS OF AMERICA

During the past year, more than 6,500 students were members of these youth organizations. Since 1966, the number of students served has practically doubled.

As an important and integral part of the curriculum of the various vocational area disciplines, these youth organizations attain their basic objectives of leadership, citizenship, cooperation, and career development through the following: workshops and conventions; community service; awards programs; contests; and social, recreational, and public relations activities.

Future plans in the area of youth leadership development include expansion of the VICA program, development of programs to serve youth with special needs, coordination of youth organization commonalities, and the implementing of special programs for disadvantaged youth.

The Division of Vocational Education encourages vocational educators at all levels to support and assist these youth organizations in developing activities which contribute to students' vocational education and self-development objectives.

* * *

WORK STUDY PROGRAMS

Vocational work-study is a non-credit program of financial aid for needy vocational students between 15 and 20 years of age, providing part-time work outside of school hours. Students may perform work in school systems or other public agencies and such work is supervised and coordinated by school personnel. Eligible students are those enrolled in vocational programs approved by the Division of Vocational Education.

The limitations on hours and compensation during the academic year:

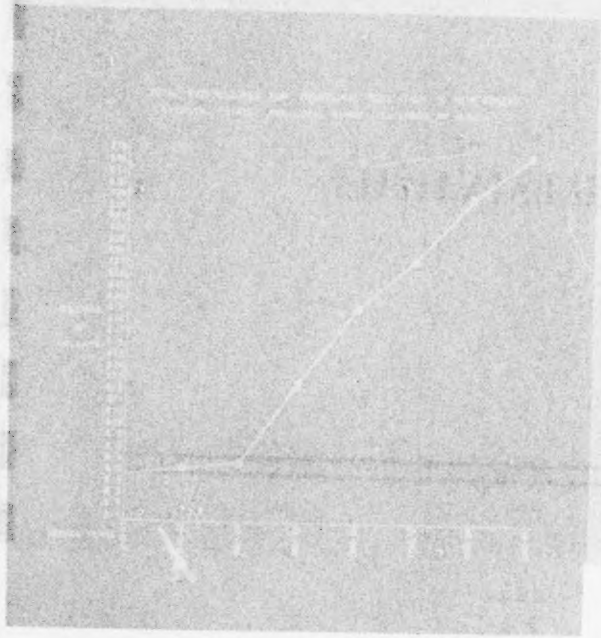
1. No student may earn more than $45.00 in any one month or more than $350.00 in the academic year.
2. While school is in session, the student may not work more than 15 hours per week.
3. The hourly rate should not be less than the federal minimum wage.

A special summer program provides work experience and financial assistance to needy vocational students by allowing students to work up to 40 hours per week and eight hours per day for public agencies to the extent of available funds. The summer program provides sheltered employment for the younger student unable to obtain his first job in private enterprise.

The Vocational Work-Study Program first started in New Jersey in January, 1965 and was instituted in as many as 118 school districts throughout the state.

The program was authorized for four years under the Vocational Education Act of 1963, and was extended for two years under the 1968 Amendments.

ADMINISTRATIVE SERVICES



MANAGEMENT SERVICES

The Bureau of Vocational Management Services shares responsibility for the proper allocation and state-wide distribution of all federal funds and a portion of the state funds for vocational education in New Jersey. In addition, this Bureau has major responsibility for coordinating the preparation of the annual preliminary budget for the Division and for developing and maintaining statistical and inventory records pertaining to the funding of vocational education programs and projects.

For more than a century, federal aid has provided to the various states the needed resources for initiating, strengthening and expanding programs of vocational education for youth and adults.

Through consolidation and amendments, federal funds specifically for vocational education are now provided to the states through the vocational education amendments of 1968. The table below indicates the amount of Federal, state, and local funds expended for vocational education in New Jersey.

	Federal	State	Local	Total
1961-62	$1,094,543	$1,450,970	$2,141,927	$4,687,440
1962-63	1,185,865	1,407,178	2,436,013	5,029,056
1963-64	1,133,264	1,593,200	2,791,386	5,518,850
1964-65	4,229,140*	3,581,982	4,821,319	12,632,441
1965-66	6,190,532*	5,731,221	7,377,023	19,298,776
1966-67	6,737,067*	7,546,636	9,318,151	23,601,854
1967-68	6,730,215*	10,798,895	11,491,824	29,020,934
1968-69	6,448,818	13,482,396	12,413,506	32,344,720

* Includes Work-Study funds.

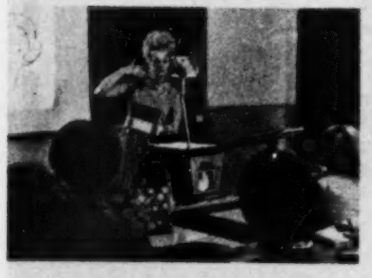
APPRENTICESHIP TRAINING

The purpose of apprenticeship training is the development and maintenance of a continuing supply of skilled workers through an organized training program with skill training provided by the employer and related instruction provided by the school. It is a state-wide, voluntary, cooperative program, utilizing the coordinated efforts of labor, industry and education.

Apprenticeship training is one of the oldest and most successful methods of training skilled craftsmen. The apprentice and master craftsman join together to insure this continuing supply needed in the trade and technical occupations.

There has been a significant increase in the number of trainees and types of programs in apprenticeship training in New Jersey since 1964. The number of registered trades and occupations has increased from 65 in 1966 to 69 in 1970. Currently there are 7116 individuals registered in apprenticeship training programs in New Jersey.

In the future, the need for skilled craftsmen, especially the machine electronic, and building trades, will lead to expansion of the apprenticeship training programs. The rate at which mechanics and technicians are trained will directly affect the growth of our industrial society.



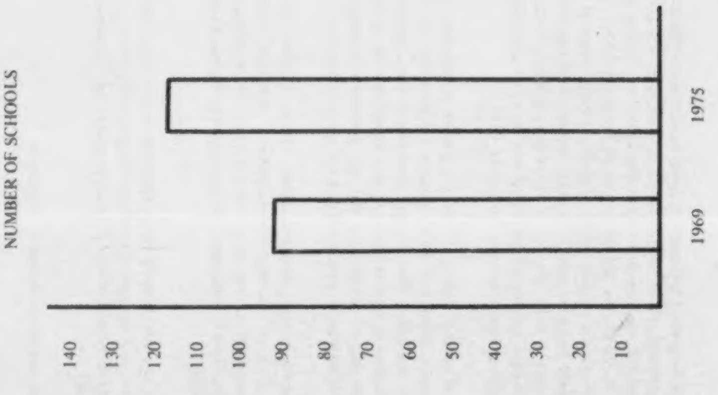
PRIVATE BUSINESS SCHOOLS

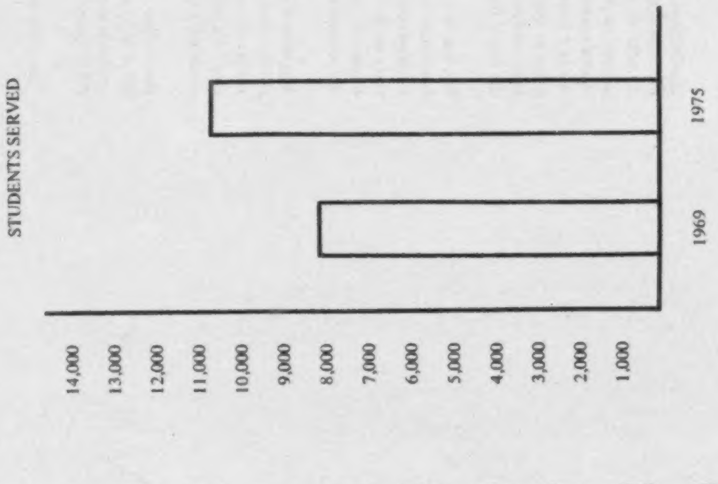
Private business schools and propriety profit-making institutions emphasize instruction in secretarial practice, accounting and the development of skills in the expanding area of business data processing. Their objective is to meet the demand of the labor market for skilled workers in office occupations not met by the public schools. In the 88 state approved schools, instruction is provided year-round, day and/or evening, in the areas of accounting and bookkeeping, business administration, data processing, computer programming, general business, office machines, office practice, stenography and typewriting.

The 1969 enrollment figures indicated an almost equal distribution of full-time and part-time male and female students. These 7,500 students consisted of recent high school graduates, adults returning to school for retraining, and verterans eligible under the new G. I. Bill.

Private business schools will continue to grow in number and to expand their offerings. Related to this is the necessary up-grading of curricula and instructional equipment to meet the ever-changing demands of business and industry. These schools assist in the development of additional essential skills and afford students with the opportunity to develop poise and maturity.

It is projected that by 1975 there will be more than 100 institutions serving nearly 10,000 students and providing employment for approximately 800 teachers.


NUMBER OF SCHOOLS
140
130
120
110
100
90
80
70
60
50
40
30
20
10
1969
1975


STUDENTS SERVED
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
1969
1975

VETERANS TRAINING

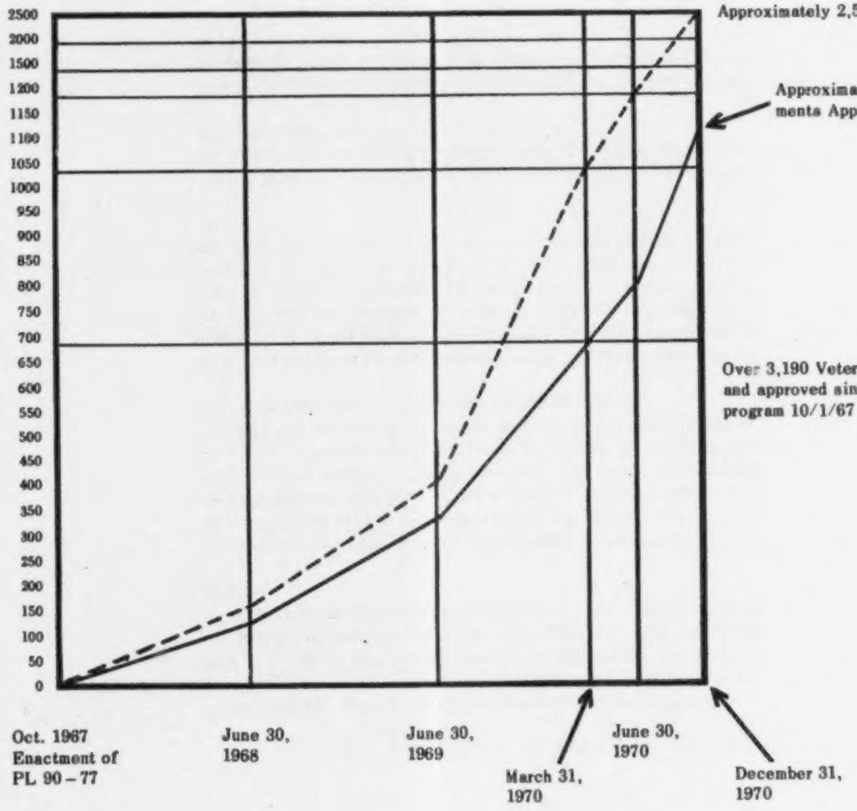
The Division of Vocational Education is designated the approving agency for vocational schools and courses for veterans' enrollment under new and former G.I.Bills. PL 89-358 was amended on October 1,1967 and is now generally referred to as PL 90-77. The law was revised on December 1,1968, granting eligible veterans one and one-half month's benefit for every month of military service.* Recently, Congress voted to increase veterans benefit by 33%, retroactive to February 1, 1970. The law in effect (P.L.91-219) provides educational and on-the-job training for individuals that have served or will serve in the Armed Forces at some time since January 31, 1955.

The approval of schools, public and private, teacher certification, facilities and courses must conform with the provision of the federal law and Veterans Administration regulations. This requires consultation with school officials, visits to the schools and establishments, and evaluations of facilities and courses. It also requires cooperation with the Veterans Administration on interpretation of regulations and on violations of approval criteria.

Approved veterans' training programs include courses in public vocational, private trade, technical, business, correspondence, computer programming and private beauty culture schools, as well as hospital training, flight training above the private license stage, apprenticeship training, in-plant training, and on-the-job training.

The number of veterans currently taking advantage of these educational benefits is impressive and has been increasing. The graph reflects the growth of activity in apprenticeship/on-the-job training programs since the enactment of Public Law 90-77.

*The maximum benefit entitlement is 36 months.



Approximately 2,511 Veterans

Approximate Number of Establishments Approved = 1,141

Over 3,190 Veterans have been registered and approved since the inception of the program 10/1/67 through 12/31/70

PRIVATE TRADE AND TECHNICAL SCHOOLS

Private trade and technical schools have achieved a position of leadership in providing occupational preparation for post-high school students who have little or no saleable skill; persons already in the labor market who recognize the need for additional training if they are to qualify for advancement; and those workers who desire to enter a different and more rewarding field of endeavor.

Currently there are 64 private trade and technical schools with an enrollment of 9,500 full-time and part-time students. These schools offer courses in more than 100 different occupations. These occupations range from Airframe and Aircraft Engine Mechanic to Welder and offer preparation for employment in such areas as Medical and Dental Technician, Musical Instrument Repair, Signcraft, Hair Removal by Electrolysis, Modeling, Tractor-Trailer Operation, and Heavy Equipment and Earthmoving Machine Operation.

Most private trade and technical schools have been noted for their constant up-grading of courses and equipment, and have kept abreast of the changes in the technology and equipment related to the occupational area represented. They are approved on an annual basis by the Division of Vocational Education. With each renewal, the school makes a full evaluation of the courses and the programs of instruction and upon approval they institute necessary changes.

These schools offer both individual courses preparing for a specific occupation and programs of instruction which are made up of several courses which offer preparation for a cluster of occupations.

A sign of the increasing excellence of the training offered by these schools is the extensive recruiting of graduates by employers who have found them to be adequately prepared in the area of their specialty.

PRIVATE ART, MUSIC AND CORRESPONDENCE SCHOOLS

PRIVATE ART AND MUSIC SCHOOLS

Private art and music schools offering courses of instruction that have a vocational objective and not a recreational or avocational objective are required to meet established standards for approval akin to those of the private trade and technical schools. In 1970 there were a total of 17 music schools and 8 art schools approved by the Division of Vocational Education. These schools had an enrollment of approximately 1,600 students.

CORRESPONDENCE SCHOOLS

In 1970 there were 16 New Jersey correspondence schools which had been approved by the New Jersey State Department of Education. In 1969, New Jersey schools provided training to approximately 28,000 students at home in the areas of locksmithing, photography, millinery design, electronics, data processing, and office machines repair.

ANCILLARY SERVICES

CAREER DEVELOPMENT

Career development recognized as an aspect of learning integrated with social, emotional, and intellectual development is a concept pertaining to the occupational needs of the individual. It encompasses related, sequential, life span experience provided through such programs as Technology for Children and vocational awareness in the early school years and Introduction to Vocations in the middle school years. These experiences aid the individual in:

1. identifying interests and abilities
2. broadening educational and occupational opportunities
3. making meaningful vocational plans

What results is the clarification of life and career goals based on potential and related personality factors.

The Division of Vocational Education offers planned, comprehensive programs such as Cooperative Work Education, Health Education, Vocational Guidance, Youth Leadership Clubs, Job Placement and many other programs that are designed to provide experiences which focus on the career development needs of the individual. The success of such programs is brought about by expanding the interaction among the student, school, home and employing community. Increased benefits are therefore provided to each through more effective use of their respective resources.

CAREER DEVELOPMENT

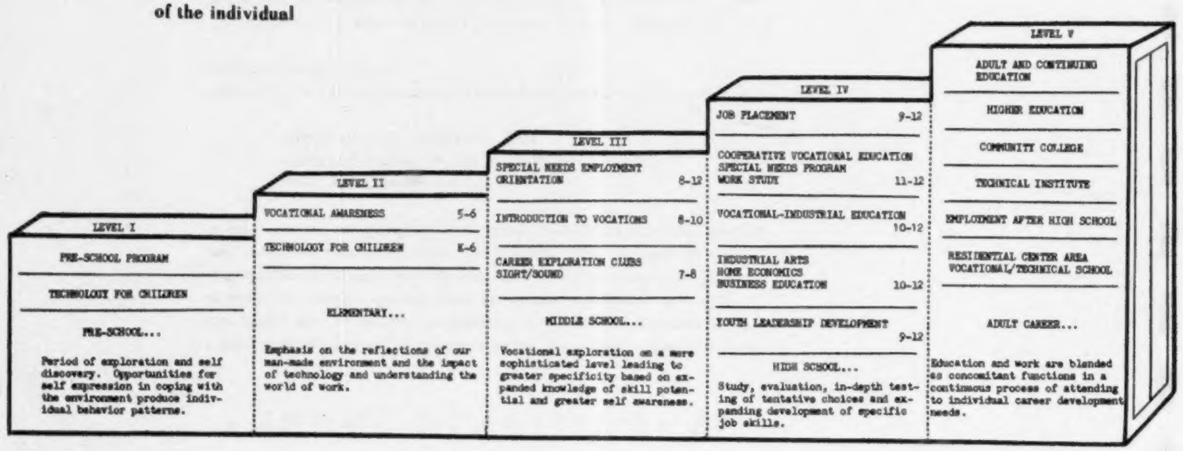
NEW JERSEY CAREER DEVELOPMENT PROGRAMS ARE DESIGNED TO MEET COMPREHENSIVE VOCATIONAL NEEDS ACROSS THE FULL LIFE SPAN OF THE INDIVIDUAL .

The step diagram illustrates the various levels of Career Development

and the vocational education programs offered from the

pre-school years through the adult life

of the individual


LEVEL I
PRE-SCHOOL PROGRAM
TECHNOLOGY FOR CHILDREN
PRE-SCHOOL...
LEVEL II
VOCATIONAL AWARENESS 5-6
TECHNOLOGY FOR CHILDREN K-6
ELEMENTARY...
LEVEL III
SPECIAL NEEDS EMPLOYMENT ORIENTATION 8-12
INTRODUCTION TO VOCATIONS 8-10
CAREER EXPLORATION CLUBS SIGHT/SOUND 7-8
MIDDLE SCHOOL...
LEVEL IV
JOB PLACEMENT 9-12
COOPERATIVE VOCATIONAL EDUCATION
SPECIAL NEEDS PROGRAM
WORK STUDY 11-12
VOCATIONAL-INDUSTRIAL EDUCATION 10-12
INDUSTRIAL ARTS
HOME ECONOMICS
BUSINESS EDUCATION 10-12
YOUTH LEADERSHIP DEVELOPMENT 9-12
HIGH SCHOOL...
LEVEL V
ADULT AND CONTINUING EDUCATION
HIGHER EDUCATION
COMMUNITY COLLEGE
TECHNICAL INSTITUTE
EMPLOYMENT AFTER HIGH SCHOOL
RESIDENTIAL CENTER AREA VOCATIONAL/TECHNICAL SCHOOL
ADULT CAREER...

Period of exploration and self discovery. Opportunities for self expression in coping with the environment produce individual behavior patterns.

Emphasis on the reflections of our man-made environment and the impact of technology and understanding the world of work.

Vocational exploration on a more sophisticated level leading to greater specificity based on expanded knowledge of skill potential and greater self awareness.

Study, evaluation, in-depth testing of tentative choices and expanding development of specific job skills.

Education and work are blended as concomitant functions in a continuous process of attending to individual career development needs.

INTRODUCTION TO VOCATIONS

Introduction to Vocations is a junior high school occupational awareness program designed to acquaint students with the world of work.

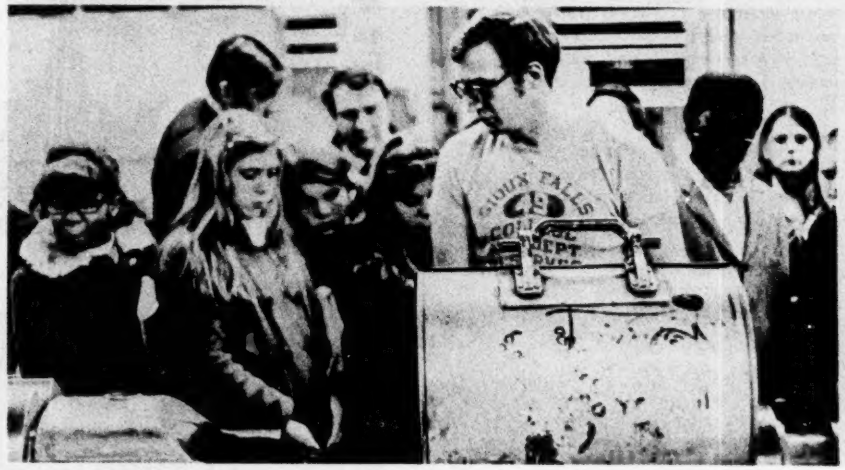
Introduction to Vocations programs in New Jersey started in 1965 with fourteen school districts. These programs provide students with: vocational guidance and counseling; manipulative, exploratory, "hands on" tool experiences; field trips to observe business and industry in action; and classroom speakers.

Implementation of Introduction to Vocations programs in New Jersey schools was assisted by federal and state funding. Business and industry have been extremely helpful in developing instructional activities. The New Jersey Mechanical Contractors Association developed materials, charts, resource information, samples of pipe joints, glass and copper pipe for experimental use, a color movie, and obtained slides and script for classroom use.

Chapter 153 of the Delta Nu Alpha, Transportation Fraternity, also assisted in preparing a transportation instructional cycle that includes speakers, visitation sites, a dispatching lesson, a loading laboratory and a transportation

game. It is anticipated that instructional cycles will be forthcoming from American Welding Society, communications, and automobile industries.

Due to the increased demand for occupational awareness programs from business, industrial leaders, and educators, Introduction to Vocations programs are expected to expand from the original 14 schools in 10 counties in 1965 to nearly 300 high schools in all 21 counties by 1975. During the next decade, student enrollment in this program is expected to increase from 800 to 12,000 and the number of local staff involved from 156 to 500.



PUBLIC INFORMATION AND PUBLICATIONS

The Division of Vocational Education has attempted to inform the state's many "publics" about new programs, trends, approaches, and developments in vocational education in New Jersey. This information is presented through news releases, monthly and quarterly bulletins, brochures and pamphlets, films, filmstrips, correspondence, speaking engagements, and staff participation in conferences and workshops.

Recurring publications currently available from the Division of Vocational Education include:

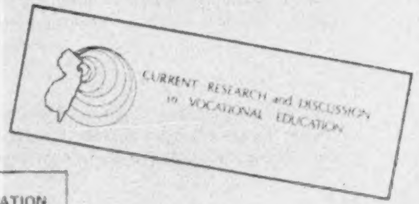
1. "Current Research and Discussion in Vocational Education" - a monthly alerting service to current vocational education research.
2. "Feedback of Occupational Research and Development" - a quarterly publication designed to form a link between products of the Educational Resources Information Center (ERIC) system and the New Jersey vocational educator.
3. "Newsletter" - published quarterly describing current New Jersey vocational education activities.
4. "The Communique" - published when deemed appropriate to release "flash" items.
5. "Developing Human Resources" - published every three years and designed to show progress of vocational education in New Jersey.

In addition to the above, specially created brochures are available to students, parents, educators and other interested persons for the following vocational areas:

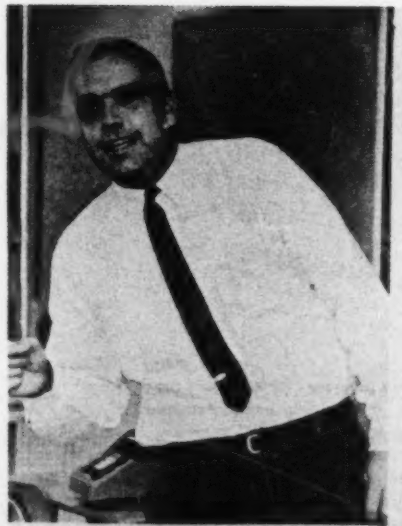
- Agricultural Education
- Business and Office Education
- Distributive Education
- Health Occupations
- Home Economics
- Introduction to Vocations
- Occupational Research
- Technical Education
- Vocational Industrial Education
- Vocational Teacher Education

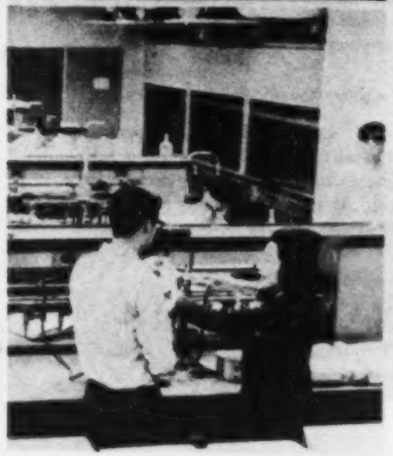
In cooperation with Rider College, the Division of Vocational Education also conducts "Preparing in School for the World of Work" career assembly programs which are designed to promote and enhance the image of vocational education. Since 1966, over 60,000 students have particpated in these career programs.

THE NEW JERSEY STATE DEPARTMENT OF EDUCATION
Feedback
OF
OCCUPATIONAL RESEARCH & DEVELOPMENT


CURRENT RESEARCH and DISCUSSION in VOCATIONAL EDUCATION

NEW JERSEY DEPARTMENT OF EDUCATION
— DIVISION OF VOCATIONAL EDUCATION —
NEWSLETTER





TEACHER EDUCATION

The teacher education section of the Division of Vocational Education is a professional service assistine colleges, universities, and local educational agencies to plan, initiate and provide necessary vocational teacher education programs.

Some of the major functions include:

1. Maintaining liaison between vocational education subject matter specialists and institutions of higher learning in order to insure that the curriculm offerings of these institutions parallel the certification requirements of New Jersey.
2. Planning required programs leading to certification.
3. Planning in-service programs designed to keep vocational teachers abreast of the latest developments.
4. Planning pre-service programs for business, industry, and military.
5. Assisting in the selection of special vocational teachers for special assignments. (selective recruiting)
6. Approving of work experience and subject area competency for teaching certification purposes.

The broad vocational areas which determine the major realm of responsibility include:

1. Agricultural Education
2. Business Education
3. Distributive Education
4. Home Economics Education
5. Industrial Arts Education
6. Technical Education
7. Vocational Industrial Education
8. Health Occupations Education
9. Special Needs
10. Consumer Education

These programs are defined in detail elsewhere in this pamphlet.

The number of vocational-technical teachers in New Jersey has constantly been increasing. This is due primarily to the expansion of vocational education programs brought about as a result of the Vocational Education Act of 1963, the 1968 Amendments to that act, and the complexity and growth of New Jersey business and industry.

MASTER PLANNING

"Action without planning is chaos. Planning without action is futile." Governor William T. Cahill spoke these words at the 13th Annual State Planning Conference to highlight the thrust of his administration in ensuring program success and cost effectiveness in the use of tax dollars.

The Division of Vocational Education has had a similar commitment to planning for a number of years. In 1963, a Department of Education survey of vocational education needs in New Jersey made it clear for the Division of Vocational Education that planning must be one of the Division's top priorities in program development.

The survey revealed that New Jersey high school curriculums were preparing students mostly for college rather than preparing them for life and occupations. This revelation was considered especially critical when it was found in 1964 that 60,000 New Jersey youths between the ages 16 and 21 were neither employed nor in school.

Great development of planning was effected in 1966 when a committee of 300 citizens from nearly every walk of life in the New Jersey community was organized into a Master Plan Committee for Vocational Education following Governor Richard J. Hughes' Symposium on Education and Training for Employment.

The work of the nine sub-committees of the Master Plan Committee for Vocational Education in New Jersey through 1980 has become the major impetus for Division planning.

The Office of Program Development, located in the Occupational Research Development Bureau, engages in planning and development of vocational programs. The director serves as the liaison person between the Master Plan Committee members and the Division. Program plans of the Division are being formulated around nine sub-committee reports. These reports will become the basis for the Division's Plan for Action. Responsibility of the development of the State Plan for Vocational Education and its subsequent revisions rests with this office.

The Division of Vocational Education looks to the future with considerable reliance on contemporary planning techniques designed to insure success for vocational-technical education in New Jersey. Both the state as a whole and each of its local communities engaging in vocational education can expect major benefits.

OCCUPATIONAL RESEARCH RESOURCE CENTER

One of the unique features of the Bureau of Occupational Research Development Division of Vocational Education is its Resource Center.

This resource center is designed as a service area for the collection and dissemination of research focused on vocational education and serves the Division's staff, school administrators, teachers, researchers, graduate students, employers and many other interested personnel.

Some of the resources available are:

- 9,000 microfiche (small film cards) from the ERIC System (the U.S. Office of Education's Educational Resources Information Center.)
- Indexes to ERIC documents and to thousands of periodical articles.
- 2,000 documents organized by topic.

A continuing information dissemination program is in operation through the following publications:

- "Current Research and Discussion in Vocational Education" publishes monthly during the school year.
- "Feedback of Occupational Research and Development" - published quarterly .

Special publications include:

"Vocational Education Research Topics List".

- "A Compilation of Resource Lists for Vocational Educators 1960-69".
- "An Inventory of New Jersey Research Concerning Vocational Education - 1931-1969".
- "Guidelines for the Preparation of Proposals for Research, Training, Experimental, and Exemplary Programs in Vocational Education".

This resource center is one of six involved with the Ohio State University Center for Vocational-Technical Education in a national pilot project to develop and improve information systems for vocational educators. To date this project has produced a model development plan, a survey of user needs, and consumer-oriented information packages.

TECHNOLOGY FOR CHILDREN PROJECT

The Technology for Children Project, the first of its kind in the nation, was financed in part by a $166,000 Ford Foundation grant to the State Department of Education, Division of Vocational Education. The project has helped teachers to combine technical activities with regular academic lessons to help children better understand their regular subjects while developing an appreciation for the role of technology in our society. The world of work has become a reality for thousands of New Jersey's children. The Ford Foundation, after closely following the project in its initial phases, again funded the project for a second three-year period in the amount of $303,460.00. Beginning with nine schools, the Technology for Children Project is being implemented at this time by approximately 275 teachers and supervisors in 98 New Jersey Schools.

This program introduces elementary pupils to technological experiences such as design instrumentation, the uses of tools and properties of materials. Project children become physically involved in doing things: building and launching model rockets; writing and printing their own stories for distribution; experimenting with electricity; designing, operating and maintaining a real profit-making business; writing, and writing, producing and taping their own TV show. The learning of elementary school fundamental skills gains a new immediacy and importance for the children.

Participating teachers are trained and provided with the necessary tools and equipment. Further support is given to the participants in the form of: monthly newsletters, personal visitations by the project staff, lending of various pieces of equipment, professional literature, and in-service workshops.

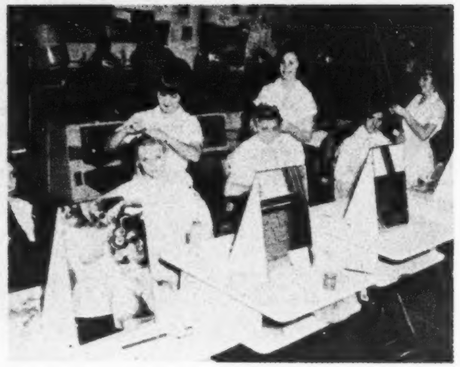
PILOT AND DEMONSTRATION PROJECTS

The Occupational Education Pilot Program was established through funds made available by state appropriations and the federal Vocational Education Act of 1963. This program was designed to initiate, strengthen, and expand vocational experience opportunities for high school youth by offering entry level job skills and occupational information in local high schools, vocational technical schools and colleges (both public and private).

During the past five years some 570 action type research pilot projects in more than 170 school districts have been conducted in a variety of program areas such as: Agriculture, Distributive Education, Employment Orientation, Health, Home Economics, Cooperative Industrial Education, Introduction to Vocations, Office Occupations, Technical, Vocational Industrial Education and Vocational Guidance and Counseling. Projects under these broad program headings involved: occupational skill instruction; occupational curriculum development; and the development of and experimentation with innovative occupational teaching aids. The major thrust of all the pilot programs was to provide experiences which would result in saleable skills for students who for the most part had not previously been afforded the opportunity to participate in vocational technical education.

At the present time the pilot program format under the 1963 Act is being phased out and replaced by the mandates of the Vocational Amendments of 1968 (P.L.90-576) Part D Exemplary.

A survey conducted by the Division of Vocational Education has indicated that the pilot programs have contributed significantly to broadening the base for vocational technical education in the state. It has been suggested by the evidence available that graduates who have received training under these programs have utilized the results of this training and it appears that they have been placed in jobs faster than the graduates who were not in the pilot programs or other forms of vocational technical education.



EVALUATION OF PROGRAMS AND ACTIVITIES

Evaluation activities were carried out:

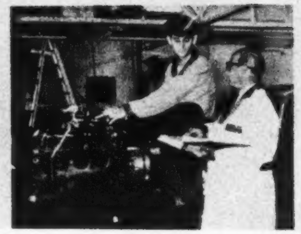
1. The Annual Report - - The division of Vocational Education prepared an annual report, which carried a description of the vocational programs, services, and activities during the year as well as the Division's evaluative judgement of program development and accomplishments.

2. Evaluation by the Division's Staff - - The division's specialists made frequent supervisory visits to the local schools for the purpose of assisting the school administrators and teachers to solve their problems and improve their programs. While making these visits, the specialists also evaluated the programs and activities. In a number of occupational fields, a standardized evaluation form under the title of "visitation report" was used for assessing program achievement.

3. Special Evaluation - - In order to obtain objective evaluation in depth for specific projects, it was the division's policy to subsidize or contract with outside researchers to conduct special in-depth evaluations when a need was felt.

   The Assistant Director of the States's Vocational-Technical Curriculum Laboratory developed a model and used it to evaluate pilot food-service programs in the public schools in New Jersey. Cybern Education, Inc., was contracted to conduct questionnaire surveys of a ten-percent random sample totaling 1,413 workers who were the graduates of the state's pilot projects and a comparable control group of 762 high school graduates. The Educational Improvement Center of South Jersey Region developed an instrument and used it in evaluating sample adult basic education programs. All of the above mentioned evaluative activities were successfully completed and their findings and recommendations have been studied and implemented.

4. Evaluative Data Project - - A special compilation of data concerning vocational education in New Jersey was developed to permit long-range trend analysis. Data for the years 1964-5 through 1968-9 was compiled.



RESEARCH

Research activities in vocational education were promoted with both state and federal funds. A total of eight in-depth research studies was conducted and one on-going research training program was initiated. One research study was a continuing project, while the other seven were new. Five of these studies have been completed. The following list summarizes the research activities.

1.	Birchenall, Joan,	A Study of the Value of Student Exposure to Health Agencies During the Pre-Clinical Portion of the Practical Nursing Program, 1969 (Completed).
2.	Brown, Walter,	An Evaluative Study of Ten Pilot Food Service Programs in New Jersey Public Schools, 1969 (Completed).
3.	Gillie, Angelo C., & Bruce Tuckman,	A Study of the Role of the Community College in the Development of Self and Occupational Concepts, 1967 (On-going).
4.	Green, Ralph,	Development of Multi-Media Programmed Instructional Materials for the Training of Law Enforcement Officers, 1967, (Completed).
5.	Gruenert, M.O.,	A Study of the Principles and Procedures of Introducing Educable Mental Retardates into a Regular Vocational-Technical High School, 1969 (On-going).
6.	Kievit, Mary B.,	An investigation of the Effectiveness of a Design for Initiating Curriculum Change in Home Economics, 1968 (Completed).
7.	Kievit, Mary B.,	A Follow-Up Study of the Effectiveness of a Design for Initiating Curriculum Change in Home Economics, 1969, (On-going).
8.	York, Edwin & the Ohio State University Center for Vocational-Education	The Information Needs of Vocational Educators in Selected States, 1970 (Completed).
9.	Law, Gordon,	Activities to Build a Continuing Research and Evaluation Component into Every Phase of Local School Operation, 1970 (On-going).

VOCATIONAL GUIDANCE AND COUNSELING

Vocational guidance and counseling is an essential service to individuals to insure that vocational education programs will meet individual needs. It may well be that the degree of utilization of vocational education in New Jersey will depend upon the level of competence found in its schools' guidance services.

The goal of the vocational guidance service is accomplished through a multiplicity of guidance activities focusing attention on individual interests and abilities. Through counseling, orientation, testing and other approaches, students are assisted in their exploration of vocational information which relates to possible plans and career choices. Counselors are also directly involved in creating an atmosphere appropriate for student self-appraisal in order to facilitate decision making and to allow for individual choice from among all possible alternatives available.

There has been increased involvement of guidance services throughout all levels of education in recent years. Focus is now drawn to increased coordination of actiities among elementary, secondary, post secondary and college levels of education. In many instances the universities and colleges of New Jersey have offered their services in effecting this increased involvement of vocational guidance and counseling.

New Jersey guidance counselors are directing greater emphasis to vocational guidance through a variety of approaches which include:

- Orientation to vocational education programs
- Visitations to business and industry
- Assistance with the placement of students in part-time and full-time employment
- Coordination of the use of guest speakers who represent the employing community.
- Cooperation with other staff members so that vocational aspects of subject are highlighted
- Development and implementation of programs designed to involve greater school-community coordination
- Development of guidance training programs incorporating vocational guidance internship activities
- Expansion of cooperative efforts among education, industry and business

URBAN EDUCATION AND MANPOWER TRAINING

NEW JERSEY RESIDENTIAL MANPOWER CENTER

The New Jersey Residential Manpower Center in Edison is operated by the State Department of Education, Division of Vocational Education, under contract with the United States Department of Labor, Manpower Administration, in conjunction with the Division of Employment Security of the New Jersey State Employment Service.

The major objective of the center is to provide an educational program for youth who have been unable to achieve in a typical school due to environmental conditions. The inclusion of the residential component in addition to occupational and basic education programs provides for planned environmental living.

The 300 man residential center will offer 12 occupational areas:

Police Cadet Training
Transportation (truck
  driving) & Warehousing
Auto Mechanics
Auto Body
Residential and Industrial
  Electricity
Plumbing

Masonry
Building Maintenance
Welding
Visual Communications
Carpentry
Cooking
Baking

All referrals are made through local employment service offices. To be admitted to the center each applicant must:

1. Be male, at least 16 but not yet 22 years old at the time of enrollment (21 years 9 months at the time of application).
2. Be a citizen of the U.S.residing in New Jersey.
3. Not have a history of serious criminal or anti-social behavior that would jeopardize his own safety or that of others.
4. Need educational and/or vocational training in order to increase his employability.
5. Express a firm interest in entering the center and a desire to do his very best to complete the training. He must agree in writing to a minimum stay of 90 days or to forfeit his readjustment allowance.
6. Be able to profit from a change of environment in a residence training program.

Trainees attend 8 hours a day five days a week. The total program of instruction includes both occupational training and the basic education related to the occupation as determined by the trainees' needs. Basic education ranges from the tutoring of illiterates, to the development of computational skills, communicative abilities and favorable attitudes. Included also is special instruction preparing trainees for high school equivalency examination as well as the English as a Second Language program. Services such as personal vocational counseling, psychological assistance, complete medical and dental services and driver education are also offered in support of the regular program. Some enrollees are enrolled in Livingston College as part of a bi-lateral agreement.

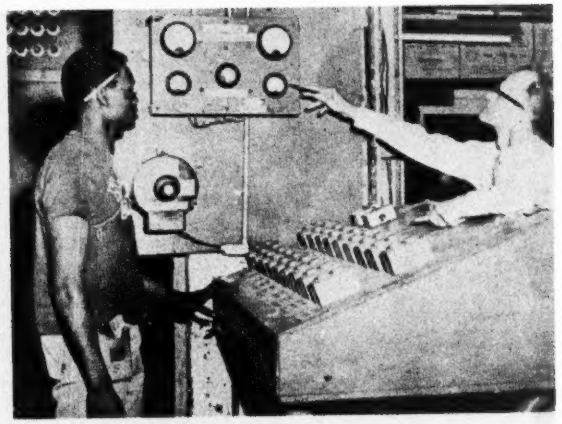
Special Features:

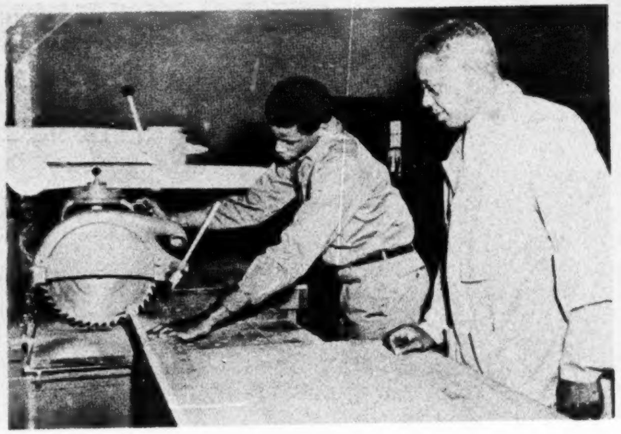
One full day at the center for a potential enrollee prior to his acceptance into the program is provided. This gives the potential enrollee the opportunity to see first hand the total program and physical plant before he makes his final decision. Also, it permits the staff of the center and the State Employment Service staff an opportunity to identify programs which will be suitable to his individual needs.

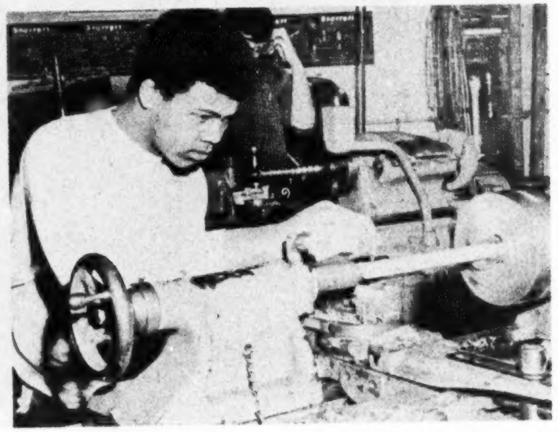
The center provides transportation for each trainee to spend the weekend at home. Buses drop the enrollees off Friday night at bus and train stations and pick them up Sunday night.

Another special feature is the orientation and pre-vocational training phase which takes place after the trainee has made his final decision to attend the center. The first two days following his acceptance are spent in an extensive orientation program. On the third day the enrollee enters the vocational area of his choice for a flexible period of time (one day to six weeks) to assist him in determining if this is in fact the area he would like to pursue in depth. The enrollee with the help of his counselor and advisor may explore several areas before he makes a final vocational choice.

Following the training program, placements are made by the Residential Center and the State Employment Service, which also maintains follow-up records of the graduates.







MR. C. HASSELL
BROKERAGE CLERK SPECIALISTS

MANPOWER DEVELOPMENT AND TRAINING

The Manpower Development and Training Act of 1962, as amended, provides for occupational training and retaining of unemployed and underemployed youth and adults.

Occupational training programs are conducted by local boards of education, county vocational boards of education, or private trade and/or business schools, under the direction of the New Jersey Department of Education, Division of Vocational Education, Office of Manpower Development and Training and through a cooperative arrangement with the State Office of the Division of Employment Security.

It is the responsibility of the Division of Employment Security to determine and initiate the need for these programs. The New Jersey State Department of Education, Division of Vocational Education has the responsibility for selecting an approved public or private training facility to carry out the program.

New Jersey has eight multi-occupational skills centers which provide five to twenty-four occupational courses, including Basic Education (skill related), pre-vocational training, counseling (individual, education and employment), and supportive services (medical, psychological, psychiatric, health, and legal). Training periods vary in length from six to thirty-six weeks.

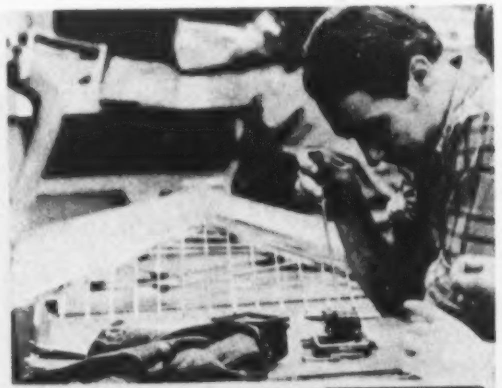
Programs conducted on a statewide basis through "skills centers" and other facilities, represent seven major occupational groups (clerical-office, distributive, food service, medical-health, service trades, industrial trades, and technical trades) and are composed of over sixty occupations such as:

Clerk-Stenographer, Meat Cutter, Cook-Baker, Licensed Practical Nurse, Radio and T.V.Repair, Air-Conditioning and Refrigeration Mechanic, Automotive Services, Machinists, Draftsman, Welders, and many others.

From 1962 to 1970 over 37,000 individuals received training at a cost of 73 million dollars. This figure represents approximately 37 million dollars for training and 36 million dollars for allowance.

Multi-occupational centers are located in five major urban areas (Newark, Jersey City, Camden, Trenton, and Atlantic City), in one rural area (Bridgeton) servicing three counties (Cumberland, Salem, and Cape May), and at two correctional institutions (Annandale-male, Clinton-female). In addition, single occupational programs are conducted in Bergen, Passaic, and Middlesex Counties. Individual referrals are made to private business and trade schools when programs desired are not available elsewhere. Skills center facilities and services are available for use by other Federal Agencies or Programs such as the State Rehabilitation, Department of Health, Department of Labor, and Institutions and Agencies.

Manpower Development and Training project proposals are subject to approval or disapproval by a federal review team from the Regional Office of Health, Education and Welfare, and the Bureau of Employment Security, Department of Labor. These programs are jointly funded by the U.S.Department of Health, Education and Welfare, and the U.S.Department of Labor.



VOCATIONAL TECHNICAL CURRICULUM LABORATORY

Curriculum development in this era of exploding knowledge and space age technology is a constant challenge to vocational-technical education. Dramatic changes in the methodology of production, an emergence of many new occupations and a national commitment to the goal of full employment have emphasized the need for new, improved and creative curriculum construction.

Curriculum development is the process by which new and improved instructional methods and materials are developed in the attempt to provide every New Jersey student with a pathway to the world of work. Curricular designs and tools must be appropriate to provide each student with the necessary skills to make a meaningful career.

To seek constant improvement in instructional methods and materials the Division of Vocational Education sponsors a Curriculum Laboratory housed at Rutgers - - The State University. There teachers from all the disciplines of vocational-technical education meet each summer to design and develop new educational strategies and media.

More than 150 projects have been developed in all aspects of vocational-technical education: from programs for the deaf, slow learners and migrant students to post-secondary and county college curricula. Since 1967 nearly 400 vocational-technical programs in New Jersey have profited from the Division's Curriculum Lab by ordering materials developed. Since 1967, 950 vocational-technical programs in 48 other states, Puerto Rico, the District of Columbia, Canada, Israel and British Columbia have utilized curriculum materials developed in New Jersey.

NEWARK MANPOWER TRAINING SKILLS CENTER

The Newark Manpower Training Skills Center was established in November, 1965 by the State Department of Education, Division of Vocational Education, in conjunction with the New Jersey State Employment Service, under the Manpower Development and Training Act (MDTA).

The Skills Center is unique in that it is state operated and experimental. Innovative educational ideas and procedures are tested and performed while MDT Skill Programs are in progress.

This center is designed to deal with: the problems of workers facing job displacement, the special problems of the disadvantaged, the hard-core unemployed, other unemployed and underemployed, and the emergence of skill shortages in certain occupations.

Training periods vary from nine to forty-eight weeks. Trainees attend five days a week, eight hours a day. The total program of instruction includes both occupational training and the basic education related to the occupation as determined by the need of the trainee.

Basic education includes the development of computational skill; communicative abilities and desirable attitudes. The curricula range from the tutoring of illiterates to that required by highly technical programs and the high school equivalency examination. Basic Education also includes English as a Second Language for those to whom it is not the native tongue. Also included is Driver Education, primarily for those enrolled in a program where a driver's license may be needed in order to get a job.

Adult Basic Education is also available to those not enrolled in a vocational training program. From 9:00 A.M. 'til 9:00 P.M. walk-ins may attend this program for as many hours a day or week as is convenient to them.

Special services such as personal and vocational counseling, psychological assistance and limited health services, are also offered in support of the regular program. Trainees may be assigned to pre-vocational training which exposes them to various shop activities and related basic education. At anytime during this trial period a trainee may be assigned to a specific training program, placed in an on-the-job training situation, may accept full time employment.

The Skills Center currently offers training in occupations to men and women from 16 years of age and older.

Each shop in the Skill Center mirrors that particular industry. Real jobs are performed as appropriate to that trade. With the use of Advisory Committees of men and women active in the field, the vocational training is kept current with the demands of modern industry.

WORK INCENTIVE PROGRAM

WIN

Ten WIN Learning Centers sponsored by local boards of education have been established in nine counties of New Jersey. These centers have been developed with funds allocated to the New Jersey State Department of Education by the New Jersey State Department of Labor and Industry for the express purpose of providing meaningful and comprehensive educational programs for adult enrollees of the New Jersey Work Incentive Program (WIN)'

Each center has been developed specifically to provide adults with basic skills development and basic subject area knowledge. The learning center is viewed as essential to the success of adults in this program.

It is the fervent goal of each learning center to have each enrollee obtain a high school equivalency certificate. In many instances this may not be possible;in that event a secondary goal of raising the individual's educational level to its maximum is viewed as being more realistic.

Over 1300 adults were enrolled in the ten learning centers during Fiscal 1969. The New Jersey WIN Program is expected to include the remaining twelve counties of the state in fiscal year 1970. This expansion will require additional learning centers to meet the education needs of the welfare recipients the program is designed to serve.

XIT
ENTER TO LEARN
EXIT TO SERVE

NEW MEXICO

State Director—E. A. Vigil

ASSESSMENT OF VOCATIONAL-TECHNICAL AND ADULT EDUCATION IN NEW MEXICO

(Prepared By: Vocational Education Services, State Department of Education, State Education Building, Santa Fe, New Mexico)

PREFACE

New Mexico proudly exhibits a deeply-rooted tri-cultural society, which has endowed our State with a prime, seasonal industry in tourism. Because New Mexico has remained chiefly agrarian in nature, it is felt that the real future economic and industrial development in New Mexico is tied directly to Vocational Education opportunities.

The information herein presented is an attempt to show the positive assessment of the benefits accrued through the use of Federal funds under the Vocational Education Amendments of 1968, in New Mexico.

It is our opinion that the progress gained through vocational research, training for the disadvantaged and handicapped, development of post-secondary vocational education as well as general vocational education, not only has helped to train our residents for gainful employment, but also has aided in the natural acculturation into modern society.

It is our hope that the Federal Government will continue to support Vocational Education to the fullest extent.

ERNEST A. VIGIL,
State Director,
Vocational-Technical and Adult Education.

OBJECTIVES FOR VOCATIONAL-TECHNICAL AND ADULT EDUCATION

The objectives of the Division of Vocational-Technical and Adult Education in New Mexico are to maintain, extend and improve the present program of vocational-technical and adult education:

to develop new training programs to meet the needs of persons of all ages (secondary and post-secondary) preparing to enter the labor market;

to provide retraining for those persons in the labor market who need to upgrade their skills or learn new skills; and

to provide new and continuous programs for those persons with special education needs and other handicaps.

The ultimate objective of vocational-technical and adult education is to provide prevocational and occupational training and retraining for persons of all ages to make them employable and to provide continuous upgrading of knowledge and skills so they may continue to be employable and rise up the ladder of success.

COMPARISON OF EXPENDITURES VOCATIONAL EDUCATION, 1968-71

Description	1968-69	1969-70	Estimate 1970-71
Federal:			
Research	$52, 892	$15, 000	$113, 217
Part B:			
Postsecondary	534, 649	695, 649	877, 528
Handicapped		194, 746	203, 789
Disadvantaged		292, 119	305, 683
102B—Part A		107, 597	126, 621
Part D, exemplary		107, 005	115, 464
Part G, cooperative		135, 267	245, 024
Part G, carryover			84, 382
Part B—Secondary	616, 452	457, 886	468, 585
Home economics, secondary	25, 831	94, 917	134, 544
Advisory council	0	31, 068	30, 415
Total, Federal	1, 229, 824	2, 131, 254	2, 705, 252
Local, State, and other:			
Research	11, 010	23, 368	37, 739
Part B:			
Postsecondary	928, 547	1, 103, 121	1, 200, 000
Handicapped		242, 266	250, 000
Disadvantaged		568, 956	570, 000
102B—Part A		8, 870	10, 000
Part D, exemplary		5, 307	6, 000
Part G, cooperative		40, 874	45, 000
Part B—secondary	1, 090, 566	814, 397	900, 000
Home economics, secondary	569, 240	862, 610	900, 000
Total, local, State, and other	2, 599, 363	3, 669, 769	3, 918, 739
Special State legislation:			
Secondary	0	449, 000	749, 000
Vocational education facility	0	0	1, 000, 000
Total, special legislation	0	449, 000	1, 749, 000

Changes in our method of reimbursement to school districts:

The present funding formula needs to be revised to meet current problems. A committee has been appointed to review our present status and to make recommendations for change.

New programs—1970–1971—(100% State funding)

School district:	*Amount*
Albuquerque:	
Rio Grande, agriculture	$8, 006
Valley High, agriculture	10, 008
West Mesa, agriculture	10, 008
Highland High, distributive education	10, 008
Manzano High, distributive education	10, 008
West Mesa High, distributive education	10, 008
Rio Grande, office education	10, 008
Valley High, office education	10, 008
Sandia High, office education	10, 008
West Mesa, office education	10, 008
Highland High, trades and industry	10, 008
Albuquerque High, trades and industry	10, 008
Rio Grande High, home economics (diet aide)	10, 008
Washington Junior High, child care	10, 008
Total	138, 110
Alamogordo: Trades and industry	10, 008
Artesia: Trades and industry	10. 008
Belen:	
Agriculture	10, 008
Health	10, 008
Total	20, 016

Bernalillo: Trades and industry	10, 008
Carlsbad:	
Health	10, 008
Trades and industry	10, 008
Total	20, 016
Chama: Agriculture	10, 008
Clovis:	
Agriculture	10, 008
Health	10, 008
Trades and industry—2 programs	20, 016
Total	40, 032
Espanola: Agriculture	10, 008
Gallup:	
Crownpoint, office education	10, 008
Tohatchi, office education	10, 008
Thoreau, office education	10, 008
Zuni, office education	10, 008
Total	40, 032
Grants: Trades and industry	10, 008
Las Cruces:	
High School, agriculture	10, 008
High School, trades and industry	10, 008
Total	20, 016
Los Lunas:	
Agriculture	10, 008
Trades and industry	20, 016
Total	30, 024
Mora: Office education	10, 008
Penasco: Trades and industry	7, 348
Questa: Trades and industry, 2 half-time programs	10, 008
Roswell: Goddard High, agriculture	10, 008
Santa Fe: Trades and industry	10, 008
Silver City: Trades and industry	10, 008
Socorro: Distributive education	8, 306
Springer: Office education	5, 004
T or C: Agriculture	10, 008
Grand total	449, 000

(Compiled 10/27/70)

DEPARTMENT OF EDUCATION VOCATIONAL EDUCATION DIVISION

PROJECTED VOCATIONAL PROGRAM NEEDS FOR 1971-72

County and school	Program	State funding needs	Public Law 90-576
Bernalillo:			
Albuquerque No. 12	Dist. ed: 9 new		$90, 000
	Home economics:		
	1 food management	$10, 765	
	1 child guidance	10, 765	
	Office ed.:		
	3 intensive		22, 200
	3 cooperative		30, 000
	Trade and industrial ed.:		
	2 I.C.T. new	21, 530	
	4 I.C.T. new		59, 600
	Health occupations:		
	3 nurse aides		18, 000
	⅓ clinical suprv		

County and school	Program	State funding needs	Public Law 90-576
Catron:			
Reserve No. 1	1 off. ed.—Intensive		7,400
	1 prevoc		11,000
Quemado No. 2			
Chaves:			
Roswell No. 1	1 T & I—I.C.T.		14,900
	2 prevoc		22,000
Hagerman No. 6			
Dexter No. 8			
Lake Arthur No. 20	1 prevoc		11,000
Colfax:			
Cimarron No. 3	1 T & I—Auto mech		10,000
	1 prevoc		11,000
Raton No. 11	1 off. ed.—Coop		11,000
	1 T & I—I.C.T.		14,900
Springer No. 24	1 prevoc		11,000
Maxwell No. 26			
Curry:			
Clovis No. 1	1 off. ed.-coop		10,000
	3 prevoc		33,000
Texico No. 2			
Melrose No. 12	1 prevoc		11,000
Grady No. 61	do		11,000
De Baca: Fort Sumner No. 20	do		11,000
Dona Ana:			
Las Cruces No. 2	1 health occ.-nurse aide	10,765	
	do		6,000
	4 prevoc		44,000
Hatch No. 11			
Gadsden No. 16	1 off. ed.-intensive		7,400
Eddy:			
Carlsbad No. C	1 T & I	10,765	
Loving No. 10	1 prevoc		11,000
Artesia No. 16	1 T & I-printing	10,765	
	1 off. ed.-coop		10,000
	1 prevoc		11,000
Grant:			
Silver City No. 1	1 off. ed.-intensive		7,400
	1 T & I		10,000
	1 prevoc		11,000
Cobre No. 2	1 off. ed	10,765	
	½ T & I-electronics	5,383	
	1 prevoc		11,000
Guadalupe:			
Santa Rosa No. 8			
Vaughn No. 33	1 home ec.-9.0101		3,200
Harding:			
Roy No. 13	1 off. ed.—intensive		7,400
	1 prevoc		11,000
Mosquero No. 5	1 home ec.—9.0101		3,200
Hidalgo:			
Lordsburg No. 1			
Animas No. 6			
Lea:			
Lovington No. 1	1 off. ed.—intensive		7,400
Eunice No. 8	do		7,400
	1 prevoc		11,000
Hobbs No. 16	1 health occ. nurse aide	10,765	
	1 T & I—bldg. trade	10,765	
	3 prevoc		33,000
Jal No. 19	1 home ec.—9.0101		3,200
	1 prevoc		11,000
Tatum No. 28	1 off. ed.—intensive		7,400
	1 prevoc		11,000
Lincoln:			
Ruidoso No. 3	1 dist. ed		10,000
	1 off. ed.—intensive		7,400
	1 prevoc		11,000
Carrizozo No. 7	1 agri.—production		8,500
	1 off. ed.—intensive		7,400
	1 prevoc		11,000
Corona No. 13			
Hondo Valley No. 20	1 home ec.—9.0101		3,200
Capitan No. 28	½ off. ed.—intensive	5,383	
	1 prevoc		11,000
Los Alamos:			
Los Alamos	1 dist. ed		10,000
	1 home ec.—9.0101		3,200
	1 off. ed.—intensive		7,400
Luna: Deming No. 1	1 dist. ed		10,000
	1 off. ed.—intensive		7,400
	1T & I—I.C.T.		14,900

County and school	Program	State funding needs	Public Law 90-576
McKinley: Gallup No. 1	1 agri.—Tohatchi		8,500
	1 health occ.—nurse aide	10,765	
	4 health occ.—nurse aide		24,000
	1health occ.—clinic. sup		
	1 home ec.—9.0101 (Zuni)		3,200
	1 off. ed.—intensive		7,400
	1 T & I bldg. trade		10,000
	1 T & I—Silversmith		10,000
	1 T & I—I.C.T		14,900
	3 prevoc		33,000
Mora:			
Mora No. 1	1 prevoc		11,000
Wagon Mound No. 12	1 off. ed.—Intensive		7,400
Otero:			
Alamogordo No. 1	1 dist. ed	10,765	
	1 off. ed.—Intensive		7,400
	1 T & I—I.C.T	10,765	
	1 T & I—Printing		10,000
	1 T & I—Plumbing		10,000
	1 T & I—Electricity		10,000
	1 prevoc		11,000
Tularosa No. 4			
Cloudcroft No. 11	1 agri.—Convt. pres. prog		5,000
	1 home ec.—9.0101		3,200
	1 prevoc		11,000
Quay:			
Tucumcari No. 1	1 T & I—I.C.T		14,900
House No. 19			
Logan No. 32			
San Jon No. 34	1 prevoc		11,000
Rio Arriba:			
Chama No. 19			
Dulce No. 21	1 office ed	10,765	
Espanola No. 45	1 dist. ed		10,000
	1 off. ed.-intensive		7,400
	1 prevoc		11,000
Jemez Mountain No. 53	1 off. ed.-intensive		7,400
	1 prevoc		11,000
Roosevelt:			
Portales No. 1	1 home ec.-9.0201		3,200
	1 T & I-I.C.T	10,765	
Elida No. 2			
Floyd No. 5	½ off. ed.-intensive		5,000
Dora No. 39	1 prevoc		11,000
Causey No. 40	½ off. ed.-intensive	5,383	
	1 prevoc		11,000
Sandoval:			
Bernalillo No. 1	1 agri.-horticulture		8,500
	1 T & I-drafting		6,000
	1 prevoc		11,000
Cuba No. 20	1 agri.-production		8,500
	1 home ec.-9.0202	10,765	20,000
	1 T & I-bldg. trades	10,765	
	1 prevoc		11,000
Jemez Springs No. 31	1 agri.-production		8,500
	½ off. ed.-intensive	5,383	7,400
	½ T & I-building trades	5,383	
San Juan:			
Aztec No. 2	1 T & I-I.C.T		14,900
	1 prevoc		11,000
Farmington No. 5	1 T & I-I.C.T		14,900
	3 prevoc		33,000
Bloomfield No. 6			
	1 prevoc		11,000
Central No. 22	1 off. ed.-intensive		7,400
San Miguel:			
Las Vegas T No. 1	1 T & I—I.C.T		14,900
	1 prevoc		11,000
Las Vegas C No. 2	do		11,000
Pecos No. 21			
Santa Fe:			
Santa Fe No. C	1 agri.—horticulture	10,765	
	1 home ec.—9.0101		3,200
	1 T & I—welding		10,000
	1 T & I—electricity	10,765	
	1 prevoc		11,000
Pojoaque No. 1	do		11,000
Sierra: T or C No. 6	½ T & I—I.C.T		7,450
Socorro:			
Socorro No. 1			
Magdalena No. 12	1 prevoc		11,000

County and school	Program	State funding needs	Public Law 90-576
Taos:			
Taos No. 1	½ T & I—I.C.T		$5,000
	1 prevoc		11,000
Penasco No. 4	1 agri.—production		8,500
	1 home ec.—9.0101		3,200
Ojo Caliente No. 6			
Questa No. 9			
Torrance:			
Estancia No. 7			
Moriarty No. 8	1 agri. hort—change pres. prog		
	1 agri. bus.—change pres. prog		
Mountainair No. 13			
Encino No. 16	1 home ec.—9.0101		3,200
Union:			
Clayton No. 1			
Des Moines No. 22			
Valencia:			
Los Lunas	1 health occ.—nurse aide	$10,765	
	1 prevoc		11,000
Belen No. 2	1 off. ed.—coop		10,000
	½ T & I—I.C.T		7,450
	1 prevoc		11,000
Grants No. 3	1 off. ed.—coop	10,765	
	1 T & I—I.C.T		14,900
	1 T & I—electricity		10,000
	1 prevoc		11,000
Totals		252,980	1,475,200
State funding needs			$252,980
Public Law 90-576			1,475,200
Grand total			1,728,180

Vocational programs	State funds
Fiscal year 1970-71:	
46	$449,000
Fiscal year 1971-72:	
(Ongoing) 46	496,020
(New) 23½	252,980
Total (69½)	749,000

EMPLOYMENT NEEDS BY COUNTIES, 1970-75

County	Projected needs 1970[1]	Vocational trainees 1970	Over plus undertrained	Projected needs 1975[1]	Projected[2] vocational trainees 1975	Over plus undertrained
Bernalillo	117,448	12,577	−104,871	135,008	16,966	−118,042
Catron	600	18	−582	501	181	−320
Chaves	15,217	1,331	−13,886	16,393	3,125	−13,268
Colfax	3,999	602	−3,397	4,130	1,403	−2,727
Curry	11,531	1,326	−10,205	12,598	2,478	−10,120
De Baca	809	126	−683	777	363	−414
Dona Ana	29,413	3,260	−26,153	32,643	7,060	25,583
Eddy	17,094	1,327	−15,767	17,107	2,850	−14,257
Grant	7,308	538	−6,770	7,788	1,742	−6,046
Guadalupe	1,573	208	−1,365	1,629	515	−1,114
Harding	538	88	−450	559	126	−433
Hidalgo	1,846	−205	−1,641	1,926	418	−1,508
Lea	20,020	1,742	−18,278	19,475	3,616	−15,859
Lincoln	2,909	431	−2,478	4,028	931	−3,097
Los Alamos	8,631	233	−8,398	9,613	830	−8,783
Luna	4,109	143	−3,966	4,635	449	−4,186
McKinley	12,497	682	−11,815	14,494	2,187	−12,307
Mora	1,095	52	−1,043	1,170	431	−739
Otero	11,043	647	−10,396	10,729	2,142	−8,587
Quay	4,729	612	−4,117	5,485	1,381	−4,104
Rio Arriba	4,740	636	−4,104	5,612	2,211	−3,401
Roosevelt	6,910	1,972	−4,938	7,872	2,009	−5,863
San Juan	15,445	1,740	−13,705	17,817	3,192	−14,625
San Miguel	5,583	1,580	−4,003	5,486	2,825	−2,661
Sandoval	2,836	280	−2,556	4,039	1,456	−2,583
Sante Fe	17,284	1,043	−16,241	19,149	3,015	−16,134
Sierra	2,839	83	−2,756	3,705	389	−3,316
Socorro	2,428	419	−2,009	2,673	745	−1,928
Taos	4,284	545	−3,739	5,607	1,889	−3,718
Torrance	1,453	451	−1,002	1,619	757	−862
Union	1,970	221	−1,749	2,012	665	−1,347
Valencia	7,292	975	−6,317	7,158	3,925	−3,233

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[1] Rhoner Study Master Plan For Vocational Education in New Mexico.
[2] Vocational education supervisors.

SUMMARY OF COST COMPARISON BETWEEN VOCATIONAL AND GENERAL EDUCATION

INTRODUCTION

This is based on present 1968–69 costs only. No allowance is made for heavy equipment, fees charged students or donations by the community.

And most importantly, it does not reflect in any way what *should* be spent for vocational education.

A. Secondary level

	Amount
1. Adjusted 1968–69 costs of vocational education on an FTE (ADM) equivalency basis:	
(*a*) Agriculture	$853.72
(*b*) Distributive education	260.90
(*c*) Health occupations	1,128.68
(*d*) Home economics	447.80
(*e*) Office education	536.66
(*f*) Trades and industry	947.91
2. Averages of above:	
(*a*) Simple average	695.94
(*b*) Weighted average	548.22
3. Adjusted 1968–69 costs of general education at the secondary level	461.48
4. Relative costs of vocational education and general education in New Mexico:	
(*a*) Agriculture	1.85–1
(*b*) Distributive education	.57–1
(*c*) Health occupations	2.45–1
(*d*) Home economics	.97–1
(*e*) Office education	1.16–1
(*f*) Trades and industry	2.05–1
(Weighted average	1.19–1)

B. Postsecondary level (Instructionally related only) (1969–70 figures)

	Amount
1. New Mexico Junior College (Hobbs-figured per credit hour)	
Cost of academic	$39.42
Cost of vocational	78.96
Eastern New Mexico University (Roswell-figured per FTE)	
Cost of academic	301.95
Cost of vocational	709.64
2. In this case, the ratio of vocational to academic costs were (academic=1):	
New Mexico Junior College	2.00–1
Eastern New Mexico University-Roswell campus	2.35–1

VOCATIONAL PROGRAM

The Vocational Division has the responsibility of supervising, developing and planning programs. The fiscal management of vocational and technical education programs is another prime responsibility. During the current fiscal year (1970–1971), the Federal Acts which will fund vocational education are:

(1) Vocational Education Act of 1963, amended in 1968.
(2) Manpower Development and Training Act.
(3) Area Redevelopment Act.

In order to achieve objectives, programs are operated by the Vocational Education Division, under the Vocational Acts, and are described briefly as follows:

A. Secondary schools

The secondary school vocational area had at least one vocational program in every county in the State in 1969–70; 79 of the 89 school districts offered programs in one or more of the following fields:

(1) Agriculture Education.
(2) Distributive Education.
(3) Health Occupations.
(4) Home Economics.
(5) Office Education.
(6) Trades and Industrial Education.
(7) Technical Education.
(8) Vocational Guidance.

For Fiscal Year 1970–71, approved vocational education programs will be in operation in 86 of the 89 school districts.

The objective of the secondary school program is, where possible, to provide prevocational and occupational training to educate students for immediate employment or prepare for further training in vocational or technical programs leading to employment.

Students enrolled last school year, 1969–70, in the secondary programs were 21,819.

B. Postsecondary schools

Postsecondary programs are operated basically in six area vocational schools with one additional school in the planning stage and three technical institutes. Programs offered are in the same general areas as the secondary, however, more emphasis is placed on health occupations and technical education.

The objective of the postsecondary program is to give specific job training for employment.

There are three technical institutes in universities which offer concentrated two-year programs in the technologies, such as electrical, electronics, machine, mechanical, drafting, civil engineering, electromechanical, data processing and secretarial work. The three institutes are:

(1) New Mexico Highlands University—Las Vegas.
(2) Eastern New Mexico University—Portales.
(3) New Mexico State University—Las Cruces.

At New Mexico State University, an agricultural institute provides programs in farm machinery services, landscaping and nursery.

A dental assistant program is offered at the University of New Mexico, Albuquerque. The University of Albuquerque offers an Associate Degree in Nursing.

The area vocational schools are as follows:

(1) Albuquerque Technical-Vocational Institute.
(2) New Mexico Technical-Vocational School, El Rito*.
(3) New Mexico Junior College, Hobbs.
(4) Eastern New Mexico University, Roswell Campus.
(5) New Mexico State University, San Juan Branch College, Farmington.
(6) Luna Area Vocational School (opened 1970–71 school year).
(7) Highplains Area Vocational School, Clovis (scheduled to open 1971–72 school year).

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*Formerly Northern New Mexico State School.

Programs offered in these schools are: distributive mid-management, licensed practical nursing, registered nursing, dental technicians, secretarial training, drafting, data processing, aviation airframe and power plants, watch repair, and other occupational training.

All of the postsecondary offerings need to be enlarged and expanded as rapidly as funds will permit because the demand for training is great and potential placement of trainees is excellent. Albuquerque's new industries will hire 2,800 employees for 1970–71, however, on a basis of their employment this expands three to one or a total of approximately 8,400 employees will be involved. The total number enrolled in postsecondary programs in the State of New Mexico for school year 1969–70 was 4,927.

C. Adult vocational programs

The adult programs are designed for part-time students. The major objectives in the adult phase of vocational education are to meet the needs for improvement, training or retraining of persons in the world of work.

Many people need refresher courses to learn new and improved skills in their occupations. Class work for apprentices and journeymen is an example of related training offered. Training programs are important to the economy of the State. Classes have been limited on the basis of available funds rather than the demand for training.

Adult programs are offered by each of our Divisions:

(1) Agriculture Education.
(2) Health Occupations.
(3) Distributive Education.
(4) Office Education.
(5) Technical Education.
(6) Trades and Industrial Education.
(7) Home Economics Education.

There were 7,682 persons enrolled in adult education programs last year (1969–70).

D. Special needs

Vocational programs are offered to persons who do not have an employable skill because they lack certain abilities or the situation demands special programs. These programs are offered in six public schools, as well as:

(1) New Mexico Boys' School, Springer.
(2) New Mexico Girls' Welfare Home, Albuquerque.
(3) New Mexico School for the Visually Handicapped, Alamogordo.

Plans for providing vocational programs at the Los Lunas Medical Center* in Los Lunas are underway for the school year 1970–71.

Programs are in the field of Home Economics, Health, Trades and Industry, Agriculture, Office Education, Exemplary and Special Cooperative.

E. Work-study program

The Vocational Act provides a work program for underprivileged students enrolled in vocational programs. The purpose is to assist needy students financially to complete training programs. The Federal Act provides 80 percent of the money and the State or local agency provides 20 percent of the funds.

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*Formerly Los Lunas Hospital & Training School.

Students are employed by a nonprofit public agency and are paid from those vocational funds. This provides a wonderful opportunity for work experience while the student is receiving training.

HANDICAPPED PROGRAMS—PART B

SPECIFIC HANDICAPPED PROGRAMS

Description	School	Amount
1. Prevocational guidance program focusing on dissemination vocational information and practical work.	Espanola	$3,000
2. A horticulture and floral arrangement program has been developed for disadvantaged girls.	Girls' Welfare Home	11,700
3. Vocational training and experience in cabinet making, welding, automotives, and food preparation.	Springer Boys' Home	17,050
4. Vocational training is provided for the blind and partially sighted students in the areas of piano tuning, food services, and health occupations.	Alamogordo School for the Visually Handicapped.	14,400
5. A team of occupational therapists are providing therapy and training for perceptual motor dysfunction clients.	Goodwill Industries, Albuquerque.	9,000
6. Specific work training on campus for handicapped students. The program is established to serve specific skill areas.	Los Lunas Medical Center	18,000
7. A special education program in the trades and industry area training students in automotive services.	Alamogordo (south area)	3,500

Other handicapped students enrolled in the regular secondary and postsecondary programs will meet the total 10 percent requirement of the Act.

Short descriptions of some of the handicapped programs are herewith presented.

Los Lunas Hospital and training school—Los Lunas, New Mexico

All vocational education offerings, in which handicapped persons are enrolled, should provide reasonable opportunities to qualify them for gainful employment. During the past year, the staff at the Los Lunas Hospital and Training School has instituted a Special Needs Pilot Program entitled, "Vocational Education Demonstration Project", with great zeal and conviction.

The program began in the summer of 1970 and has attempted to rehabilitate their institutionalized retardates by formalizing a job skill training program which is appropriate to their capabilities. Ultimately, the program objective is to prepare these students to function adequately in society by acceptable social and economic standards, by providing noninstitutional employment in a position of complete semi-independence. Provision has been made to assure proper placement into vocational education programs as each handicapped person receives a comprehensive evaluation of their medical and psychological condition and their vocational education capability.

PROGRAM ASPECTS

Dietary training program

A small Dietary Training Program has been established at Los Lunas Hospital and Training School by using the kitchen and cafeteria facilities of the institution. Students are receiving on-the-job training as busboys and waitresses and have classes to strengthen time and money concepts, job courtesy skills, employee responsibility understandings, and interview and applicational skills. Pertinent field trips are also conducted to reinforce concepts of employee capabilities and to motivate them toward holding a job.

Janitor—maid training program

This training program, a completely new component, is designed to train students to work in hospital, school, university, and motel situations in custodial positions. In addition to the on-the-job training sessions, the participants will also receive classes as described under the Dietary Training Program.

Dry cleaning program

The Dry Cleaning component is being established to further the existing laundry training program. Although the latter has been successful, it only partially meets the needs in terms of placement possibilities. More jobs are available for dry cleaning workers than for laundry workers. Also, most plants combine laundry and dry cleaning operations and require their personnel to be skilled in both. The training process is parallel to that program described in Dietary, i.e., on-the-job training in the hospital facility and job attitude and skill building classes.

Horticulture project

The Horticulture program adds a training component to the farm training. In this area, students are learning techniques of irrigation, feeding, planting, and harvesting. Some may receive instructions in tractor driving. A greenhouse has been built to prepare students for work in a nursery or floral design.

Another practical training area would be dairy helpers. This projected program will have to be conducted in cooperation with a local dairy due to lack of facilities on the campus.

The conception and organization of this pilot program belongs to Jean Beardsley, the administrator for the Training School. Due to the farsight of people like Jean Beardsley and her staff, handicapped people can make useful contributions as respected, self-supporting members of their communities.

New Mexico School for Visually Handicapped—Alamogordo, New Mexico

Intensive office education program

This program includes units of instruction in Business Letterwriting, Business Communications, Business Machines, General Office Practice and the integration of simulated office training.

The visually handicapped students enrolled in this intensive office program are provided with a number of hours of individual instruction by the instructor. No specified clock hours are attached to the individual units covered. The students work individually as far as they can accomplish the required work and move from one unit to another on a rotation basis.

Each student enrolled participates two hours daily, five days a week, and the facilities are available when the student has free time for both laboratory practice and individualized instruction.

A great deal of emphasis is placed on transcription from the voice transcription machine because it has been found that the visually handicapped student excels in the transcription of material dictated on the machine.

A continual guidance program is stressed whereby the teacher and students make frequent field trips to businesses in the Alamogordo area to see the type of equipment that the student is being trained for. Also, business leaders make frequent visits to the class explaining requirements of an office employee and what an employer expects of his employee.

A continual follow-up procedure is accomplished by the instructor by visiting and discussing the accomplishments of the students who have graduated, thereby, the instructor is able to gain knowledge of what these students may be lacking in the present program.

Preceptual motor dysfunction assessment program for the Handicapped—Albuquerque, New Mexico.

Goodwill Industries is the first institution in New Mexico to utilize a new type of evaluation procedure called Perceptual Motor Assessment. This type of evaluation procedure is being utilized to assess dysfunction in school age children with learning disorders. It is also used with stroke patients. The Perceptual Motor Assessment Program at Goodwill Industries of New Mexico is additionally unique in the sense that this is the first time that a pilot study of Perceptual Motor Dysfunction involving 16–30 year old handicapped persons.

Perceptual Motor Dysfunction is a slight type of brain damage often referred to as a "learning disorder." Many clients in our work evaluation and work adjustment program are unable to adjust to a working situation because they are easily distractible, are hyperactive, have poor motor coordination, and are misinterpreting what they see. Goodwill Industries is using a highly specialized test to assess these problems that can be treated.

Purpose of project

To attempt to improve vocational readiness of the portion of the Goodwill sheltered handicapped population which was being hindered by perceptual motor difficulties, with regards to vocational assessment and job placement.

To stimulate interest in occupational therapy, and provide opportunity for high school students to consider occupational therapy as a professor. To create an awareness among the professionals and health service personnel of the community.

To upgrade skills of occupational therapists in New Mexico to accept and use the newer treatment techniques of perceptual motor dysfunction, encouraging uniform quality and service.

Screening

Eighty-nine clients of Goodwill Industries have been screened for indication of perceptual motor dysfunction. This was done through chart review, observation in the workshop, and reports of behavior from supervisors and counselors. Of the eighty-nine initial clients, twenty-seven have shown indication of perceptual motor difficulties.

Thirty-five different groups of interested persons have come to observe and/or participate in the testing and treatment session of the pilot study. The various professions represented includes: counselors, nurses, occupational therapists, psychologists, physical therapists, physicians, social workers, special education teachers and speech pathologists.

Seventy-eight junior high and high school students have been contacted through this project.

The project is under the direction of two registered occupational therapists, Mrs. Pam Dunbar, Project Director, and Mrs. Virginia Munsick, Staff Member.

The manual entitled "Occupational Therapist Examines Area of Perceptual Motor Dysfunction in the Handicapped" has been reproduced and distributed to all schools of vocational occupational therapy, to all state directors, health occupations supervisors, and vocational rehabilitation counselors. The manual is available upon request.

DISADVANTAGED PROGRAMS—102B

SPECIFIC DISADVANTAGED PROGRAMS

Description	School	Amount
1. Vocational course work combined with related on-the-job training for disadvantaged students.	Hobbs	$9,136
2. A prevocational program focusing on vocational course work and work experience for special education students.	Espanola	22,750
3. Occupational course designed for advanced students in child development, providing knowledge in the skills and understandings of young child care in a bilingual situation.	Estancia	15,000
4. Materials for an occupational awareness course for grade 6, disadvantaged, bilingual pupils.	Socorro	250
5. Sheltered-work center for educable handicapped young adults and adults, providing vocational training with related job experience serving 2 communities.	Los Alamos	22,000
6. A series of 4 courses: hotel-motel management, food and beverage management, waiter-waitress training, and cashiering; with 120 full-tuition scholarships for disadvantaged students.	University of Albuquerque	15,590
7. A junior high laboratory program developed for potential dropouts to prepare them for occupations in child care.	Washington Junior High, Albuquerque.	10,008

OTHER DISADVANTAGED STUDENTS ENROLLED IN THE REGULAR SECONDARY AND SOME POSTSECONDARY PROGRAMS

Unit	Percent	Enrollments[1]	
		Secondary	Postsecondary
Agriculture	38	4,367	
Distributive education	64	1,948	
Health occupations	76	226	
Office education	64	10,628	4,059
Trades and industry	45	2,709	1,423

[1] Beginning enrollments fiscal year 1970–71.

FEDERAL EXEMPLARY PROJECT

State.—New Mexico.

Title of project.—Tri-Cultural Vocational Work Experience Education Program.

Director.—Mr. James Baca, P.O. Box 158, Bernalillo, New Mexico 87004.

Applicant organization.—Bernalillo Municipal Schools.

Estimated total Federal funds—section 142(c).—$317,350.

Duration.—September 1970–September 1973.

DESCRIPTION OF PROGRAM

I. ADMINISTRATIVE STRUCTURE

The local project director will have full administrative responsibility for the exemplary program in the Bernalillo schools. He will employ a teacher-coordinator for vocational guidance, two work experience supervisors, one vocational counselor, and three paraprofessionals who are preferably former Indian students.

II. PROGRAM DESIGN

All students, K–12, will have access to occupational orientation and exploration, cooperative education and work experience, intensive guidance and counseling, and placement in post-secondary training on a job. The operational setting encompasses five Indian reservations and the student population is approximately 50% Indian, 40% Spanish surnamed, and 10% Anglo.

III. PROGRAM COMPONENTS

A. Occupational orientation.—In K–6 the classroom teacher, under the guidance of the district-wide teacher-coordinator will be exposed to games, charts, story books, filmstrips and television on occupations. Learning skills in arithmetic, social studies and language arts will be related to occupational skills. In grades 4 to 6 activities will expand to guest speakers and field trips; and in grades 7 and 8 to role testing and simulation.

B. Cooperative education.—Students will be transported to Albuquerque for exploratory work experience design for his observation and sampling of work conditions, for general work experience designed to assist him in the acquisition of desirable work habits and attitudes, and for vocational work experience in the specific occupation for which his school courses are preparing him.

C. Intensive job entry skill training.—Students will be provided accesses to intensive training through the vocational programs in Albuquerque and through manpower development skill training in the area. A qualified counselor will assist him in locating and securing entry into suitable training.

D. Occupational guidance, counseling, and placement.—The total program is geared to occupational guidance and counseling through classroom, work exploration, and work experience activities. Students will be given access to application forms; interviews; representatives from business industry and government during school time; and job leads and occupational counseling by the New Mexico State Employment Service. Students will be assisted through the program in securing post-secondary training and part-time employment if they wish to continue their education.

IV. UNIQUE FEATURES

A. Indian and Spanish surname para-professional persons to work with students.

B. Occupational information, where possible will be developed in the language of the home.

C. Provision of transportation and reimbursement of unusual employer expense in the provision of work experience and cooperative education.

Prepared by Sidney C. High, Jr., Chief, Exemplary Programs and Services Branch.

STATE OF NEW MEXICO—INNOVATIVE—EXEMPLARY

	Project supervisor	Amount
FISCAL YEAR 1969–70 [1]		
Enmu-Clovis—Data processing	Bob Gordon	$5,000
Hobbs—Counseling	Wade Fredrickson	4,332
Albuquerque—Washington Junior High child care	Wilma Ludwig	3,000
Counseling and guidance:		
Weed	Shelly Weissman	800
Cloudcroft	do	1,300
Pecos—Business and office exploratory for 7th and 8th grades	Bob Gordon	1,650
Albuquerque—Valley High School, horticulture	Charles Morrison	5,000
Belen—Horticulture	do	5,000
Espanola—Horticulture	do	5,000
Las Cruces—Horticulture	do	5,000
Los Lunas—Horticulture	do	5,000
Portales—Prevocational	Waymond Smtih	15,923
State—Industrial commission	Waymond Smith and Pete Eissele	50,000
Total		107,005
FISCAL YEAR 1970–71		
Weed—Vocational guidance	Shelly Weissman	800
Cloudcroft—Vocational guidance	do	1,300
Aztec—Hospitality area	Penny Jimenez	10,000
Hobbs—Counseling	Wade Fredrickson	2,864
T-VI—Miniclasses	Don Rea	42,000
Pecos—Business and office exploratory for 7th and 8th grades	Bob Gordon	8,500
Industrial development	Waymond Smith and Pete Eissele	50,000
Total		115,464

[1] These programs could not have been developed unless money for equipment was available to establish them on a pilot basis. Many of these programs have proved successful and are presently being supported solely with State funds.

PRESENT STATUS OF ALL SKILL CENTERS

TAOS

A proposal for an E.D.A. Grant to help build this facility has been submitted to the regional office in Austin, Texas. While disposition of this request is still in the mill, much correspondence is taking place between local, state and Federal officials.

GALLUP

The administration of the local community college (branch of UNM) is presently working with the Division of Vocational Education on vocational programs, proposals and surveys, to ascertain which programs would be most feasible to offer in the fall of 1971.

GRANTS

The community college (branch of NMSU) will offer its first vocational program in Office Education commencing in January 1971.

Surveys and proposals to offer other vocational programs are being made for initiation next fall. (71–72)

CARLSBAD

No programs in process.

ALAMOGORDO

No programs in process.

SANTA FE

Construction of this facility is currently underway. Vocational programs are scheduled to begin during the 71–72 school year.

BERNALILLO

This facility has been in operation for two years, serving the needs of both secondary and post-secondary students. Current enrollment is approximately 250 students.

REPORT TO THE DIVISION OF VOCATIONAL EDUCATION, STATE DEPARTMENT OF EDUCATION, ON THE STATUS OF THE VOCATIONAL-TECHNICAL HIGH SCHOOL, SANTA FE, NEW MEXICO

Date: October 28, 1970.

Submitted to: Don Rea, Division of Vocational Education.

Prepared by: John Collie, Principal, Vocational-Technical High School.

Building progress report

As of the above date the building facility is estimated to be forty percent complete. Fortunately, most of the buildings are enclosed to the point that construction can continue even though faced with adverse weather conditions. Construction is proceeding as initially planned with only minor change orders necessary and has been of a high quality workmanship. Access to the new facility is soon to be greatly enhanced by the completion of the two necessary bridges between the present high school campus and the new school. It is anticipated that the buildings will be completed to the point of installation of equipment not later than July 31, 1971. Over sixty percent of the necessary equipment has been bid and contracts have been issued for its delivery after July next year. Funds are available for purchasing the remainder of the equipment and specifications are presently being prepared, following an analysis of our needs for the first year's operation.

Opening date of school

The school is scheduled to be open for students at the beginning of the 1971–72 school year. With the completion date set for not later than July 31, 1971, and equipment installation during the month of August, the doors should open for our students right on schedule, barring unforeseen strikes or other contingencies.

Enrollment

Student interest surveys are scheduled to be conducted in the Santa Fe Senior High School in late December. Since the "day program" will be made up of offerings that will be for high school credit, the facility will be carrying an optimum student load of some 600 students. As other high school facilities are built, there will undoubtedly be space at the vocational school to offer classes to meet the needs of other than high school students during the day, however, this will not be the case for two or three years.

It is planned that students from Santa Fe High School will be able to come to the vocational school for classes as they elect and on a schedule which will permit them to change classes between the two schools with ample time.

Students who elect to work toward a salable skill at graduation will be asked to select a major area and one or more minor areas and will follow a course sequence through their junior and senior years. Hopefully, if space permits, there will be sophomore introductory courses available in the different areas.

Curriculum

The curriculum offerings for the first school year of operation have been designated since the date of the district's asking the Economic Development Administration to participate in funding. During the first year's operation, evaluation of the different areas, with regard to the employability of graduates from the programs will be made. The curriculum as presently proposed is as follows:

1. *Building trades:*
    - A. Carpentry.
    - B. Cabinet Making.
    - C. Masonry.
    - D. Plumbing.
2. *Mechanics:*
    - A. Automotive Repair.
    - B. Auto Body Repair.
    - C. Power Mechanics.
3. *Metal trades:*
    - A. Machine Tool Technology.
    - B. Welding.
4. *Drafting and allied sciences*
5. *Electronics:*
    - A. Basic Electricity.
    - B. Electronics.
    - C. Radio and Television Repair.
6. *Graphic arts:*
    - A. Printing.
    - B. Related Photographic Arts.
7. *Surveying and related courses*

8. *Business education:*
    - A. Bookkeeping II.
    - B. Business English.
    - C. Business Law.
    - D. Business Math.
    - E. Clerical Office Machines Procedures.
    - F. Data Processing.
    - G. Distributive Education.
    - H. Office Practice.
    - I. Office Machines.
    - J. Shorthand II.
    - K. Typing II.
    - L. Unit Records and Procedures.
9. *Horticulture:*
    - A. Landscaping.
    - B. Gardening.
10. *Service occupations:*
    - A. Custodial Maintenance.
    - B. Driveway Salesmen.
    - C. Food Services.
    - D. Hotel-Motel Management.
11. *Health occupations:*
    - A. Dental Assistants.
    - B. Nursing Assistants.
    - C. Allied Health Occupations.

STAFFING

Preliminary projections indicate that there will be a need for instructional personnel to be added in eight new curriculum areas. These are:

1. Electronics.
2. Welding.
3. Auto Body Repair.
4. Health Services.
5. Data Processing.
6. Graphic Arts.
7. Air Conditioning, Plumbing and Heating.
8. Horticulture.

The net increase in total instructional personnel at the senior high school and the vocational high school cannot be determined at this time. Every attempt will be made to employ people who have a teaching capability in more than one area. Early in 1971, the exact personnel needs will be determined and interviews conducted with interested applicants. The estimated number of teachers presently at the high school to be transferred to the vocational school is fifteen.

Adult evening program

An expanded adult and continuing education program is envisioned for the community as a result of the building of the vocational-technical high school. The adult courses which are presently being conducted in the Mid High School during the evening will be relocated to the new vocational school. These include: Adult Basic Education, Carpentry Apprentice and Electronics. During the school year 1970–71, additional course offerings wil be developed for adults on a tuition basis. It is hoped the program can be enlarged to the point the school is offering educational opportunities four nights each week to the citizens of the school district. When feasible, additional funding through designation as an area vocational school should be sought in order to lower the actual tuition costs to our adults who wish to take advantage of the opportunity for additional education.

Budgetary provisions

Since the vocational-technical high school will be an additional building unit of the present Santa Fe Public School System and draw students from the existing Santa Fe Senior High School for the coming year, separation of its budget from the other secondary programs appears academic. Funds for its operation will be derived from average daily membership distribution for the high school students, plus the allocation for vocationally approved courses taught at the school. Adult courses will be funded on a tuition basis plus the allocation for vocationally approved courses from the Division of Vocational Education.

Although funds from Federal sources are being sought to help with the operational costs of the school, none have been forthcoming at the time of this report.

In view of the limited funding base for the first year's operation, it is expedient that the student load from the senior high school be alleviated when possible in order that the vocational school may take on the responsibility and fulfill the role of an area vocational school, whereby such designation would broaden its base for funding and further enhance its opportunity for educational service to the citizens of the area.

LUNA AREA VOCATIONAL SCHOOL

The Luna Area Vocational School is now a legal entity. With the approval of the five mill levy by the four participating school districts, and with the receipt of the Bill of Sale and Warranty Deed from H.E.W., Luna is the first area vocational school to be organized under the area vocational school act.

Curtailed by delayed equipment deliveries and minor staffing problems, the administration has been forced to open programs as late as October 5, 1970. Satellite programs in Office Education will be offered at night to adults starting the week of October 5, in the communities of Santa Rosa, Mora, East and West Las Vegas School Districts.

The anticipated cost for the same time period is as follows:

	Amount
Total operational	$290, 207
Breakdown of revenue:	
1. .005 mill levy	157, 025
2. State department (vocational education)	75, 000
3. MDTA	38, 773
Total	347, 256

Estimated revenue	270, 798
Actual cash balance (June 30, 1970)	76, 458
Total	347, 256
Tentative budget	265, 207
Emergency	25, 000
Total	290, 207
Estimated resources	347, 256
Total budget	290, 207
Unbudgeted	57, 049

LUNA AREA PROGRESS REPORT

As of October 28, 1970, we have classes in operation in Welding, Building Trades, Auto Mechanics and Electronics.

These courses are in addition to the MDTA classes for cooks and stenographers that were started during the summer of 1970.

We have hired a director and a clerk for the Nursing Program and are at present involved in setting up the Nursing Program, hopefully to start December 1970. We have also hired two part-time counselors who are presently working with students.

The enrollment "on campus" is as follows:

	Students
Welding	12
Auto Mechanics	27
Building Trades	4
Stenographers	14
Electronics	18
Cooks	14

Of these totals, 21 students are bussed in from Mora and are attending.

We anticipate opening classes for Drafting and Business Education at Luna also by the second semester, 1971.

As yet, no Satellite Program has been established in either East or West Las Vegas.

LUNA SATELLITE PROGRAM IN MORA

We have started three courses in Business Education in Mora High School. One course offers Typing I and Typing II, another course in Shorthand and a course in Bookkeeping. Each course is of 60 hour duration. They are taught twice a week, two hours per night.

The total enrollment in Mora is 62. Enrollment in each course is as follows:

	Students
Typing I	15
Typing II	10
Bookkeeping	25
Shorthand	12

The classes in Mora started on October 5, 1970.

SANTA ROSA SATELLITE PROGRAM

We received a letter on October 17, 1970, from Mr. Edward Bencini, who is acting as local coordinator for the Luna Area Vocational School, stating that he has made several presentations on the local radio station and newspaper, and as a result, he has had a total of four inquiries about the Satellite Program. Two persons were interested in shorthand and two in bookceping and typing.

We are still working on the Santa Rosa Program and should have something going by the second semester.

Progress Report, New Mexico Technical-Vocational School, Espanola Branch, Espanola, New Mexico

(By Seledon C. Martinez)

This progress report covers the different facets of development of the New Mexico Technical-Vocational School, Espanola Campus, as of November 1, 1971, two and one-half months before the target date when instructional classes are scheduled to begin.

The reactions of the Director of Vocational Education are based on the assumption that the current schedule of staffing, student body, building and related factors is maintained at the present pace. Unless unforeseen circumstances occur, such as city water and sewage problems, equipment shortages, or strikes, there is no reason why the school cannot be operative by January 25, 1971.

I. BUILDING COMPLETION

Lawrence A. Garcia & Associates, architects for the Espanola Project, No. 08-1-00682, report that 60 percent of the project has been completed, and the target date of building completion, which is January 8, 1971, is attainable under prevailing circumstances. Movable and fixed equipment has been bid and awarded and delivery should start in early December 1970.

II. STAFFING

The New Mexico Technical-Vocational School Board of Regents, through the school administration, has been receiving applications for professional and nonprofessional positions during the last six months. The screening committee of the school, made up of the Superintendent, the Director of Vocational Education, a member of the Board of Regents, will make their final recommendations to the Board of Regents, by November 15, 1970. Applications for the professional positions have been received from throughout the United States, and will be considered in accordance with the highest merits that the applicants have to offer to the institution.

III. STUDENT ENROLLMENT

It is estimated that approximately 300 students can be accommodated within the nine-day programs and 200 enrollees during the evening hours, within the spring trimester, 1971. At the present time, close to 100 post high school individuals have been processed for enrollment.

The senior classes of the area high schools have been contacted and briefed on the early admissions programs for those seniors who will have met high school graduation requirements by January 20, 1971. These students can enroll at New Mexico Technical-Vocational School in the spring trimester, beginning January 25, 1971.

IV PROPOSED COURSE OFFERINGS (DAY AND EVENING)

A. The proposed skill programs that are scheduled to be offered during the day hours are: Industrial Electronics, Machine Tool Operation and Design, Welding, Food Preparation and Management, Clerk-Steno, Clerk-Typing, Accounting, and a facet in the Health Education area. Supportive courses in Vocational Math and Oral and Written Communications will be offered to complement the skill education offerings.

B. The evening programs that have been budgeted for the spring trimester are: Radio and TV Repair, Basic Machine Tool, Welding, Legal and Medical Secretarial Education, Income Tax and Payroll Accounting, Meat Cutting, Salesmanship and Cashiering. G.E.D. preparation classes will be offered during day and evening hours to prepare those who dropped out of high school and now wish to attain their high school equivalency diploma.

V. NEW TRIMESTER SCHEDULE

New Mexico Technical-Vocational School, at El Rito and Espanola, will offer skill and related education on a year round basis, starting with the spring trimester on January 25, 1971. A trimester is of 75 days duration, offering classes six hours daily. One-year programs are self-contained, while five trimester programs are scheduled in two three-hour blocks of time.

VI. PROGRAM PROPOSALS 1971–1972

A. The programs for the El Rito Campus being offered at present are: Auto Mechanics, Auto Body, Barbering, Cosmetology, Electricity, Electrical Applicance Repair, Drafting, Clerk-Steno, Clerk-Typing, Nurse Assistant, Office Machine Repair and the related supportive education. These will be offered during the next school year also. These programs will accommodate approximately 350 students.

B. In regard to the Espanola Campus—Industrial Electronics, Machine Tool Processes, Welding, Cooking and Related Culinary Arts, Practical Nursing, Accounting, Clerk-Steno, Clerk-Typing and other preparational programs will be offered during the day hours. Approximately 300 students can be accommodated within the day hours.

C. The evening programs will feature Legal and Medical Secretarial Education, Accounting, Radio and TV Repair, Welding, Basic Machine Tool, Meat Cutting, Salesmanship and Cashiering.

D. The night Adult Basic Education classes will offer Beginning Typing, G.E.D. Preparation, Corrective Oral and Written Communications, Basic Math and Remedial Reading and Spelling. By the fall of 1971, 300 students should be taking advantage of night classes.

NOTE: There were problems in completing the school, therefore, it did not open on January 25, 1971. It should be opening by June, 1971.

NEW MEXICO TECHNICAL-VOCATIONAL SCHOOL, ESPANOLA BRANCH

Operating Budget 1970–1971—submitted May 14, 1970

	Request 1970–71
Educational and general—main campus	$270,500
Auxiliary enterprises	1,000
Capital outlay	11,000
Grand total available	282,500
Administration and general expenses	7,928
Instruction	102,907
Libraries	7,521
Plant operation and maintenance	36,080
Total education and general	154,436
Auxiliary enterprises	1,000
Capital outlay	11,000
Total expenditures and outlay	166,436
Education and general	116,064
Total balances carried over	116,064
Grand total expenditures and balances	282,500

HIGHPLAINS AREA VOCATIONAL SCHOOL

On March 11, the State Board of Education gave its final approval for designation of Clovis, New Mexico as the site for the Highplains Area Vocational School District.

Commencement of classes are expected in mid-September of 1971.

STATE MASTER PLAN

The State Master Plan for the Development of Vocational-Technical Education in New Mexico as approved by the State Board of Education in 1969, states that nine area vocational schools are to be in operation by September of 1980.

Eight of these schools will be operative by September of this year (1971). The last one to be located in Las Cruces, New Mexico, will be in operation by September of 1972.

New Mexico is eight years ahead of its Master Plan for area vocational school development.

RESEARCH COORDINATING UNIT

The Research Coordinating Unit has met the following objectives as set forth in Part III of the State Plan—Annual Program Plan.

1. Coordination of research

An RCU Advisory Committee was appointed in Fiscal Year 1969–1970, and two meetings are held per year, with additional meetings called as needed. The committee reviews, develops criteria and recommends research projects for funding to the RCU Director.

2. Stimulation of research

Vocational Mini-Grants

How to encourage beneficial vocational research with limited funds, posed a definite problem for the Research Coordinating Unit Director. Also, how to stimulate participation of local vocational personnel was a definite challenge.

After investigation of the pilot mini-grant project that Oklahoma conducted, this idea was then adapted to the State of New Mexico.

In October 1969, an announcement of the mini-grant project, with a proposal application, was mailed to vocational teachers, local vocational directors and administrators. The principal concept was for fresh, new and innovative ideas with little monetary award. The top range being $500.

One hundred and forty-eight mini-grant proposals were received. From these, the New Mexico Research Coordinating Unit Advisory Committee selected 40. Some of the ideas that were selected included development of teaching materials (video tapes and slides), new curriculum developments, involvement of industries, surveys of vocational graduates, pre-vocational orientation pilot programs, and elementary vocational education pilot programs. The total funding was $8,896 or an average of $222.40 per mini-grant.

The recipients were spread geographically, as well as at all levels of vocational education.

Special thanks go to the State Vocational Supervisors for their enthusiam and cooperation in helping the Research Coordinating Unit Director inaugurate and monitor the mini-grant project.

The key word throughout has been "involvement". Besides all vocational personnel and administration, a commendation for industry's involvement should be recognized.

The mini-grants will be published by the RCU. Limitations on publications will range from 1,000 to 3,000 copies and will be disseminated as follows:

Federal Agencies.
State Legislators.
State Board of Education.
New Mexico RCU Advisory Committee.
New Mexico Advisory Council for Vocational Education.
All State RCU Directors.
Superintendents.
Secondary Principals.
Junior High Principals.
Local Vocational Directors.
Vocational Teachers (Reports pertinent to their teaching area).
Libraries.

Requests (limitation—one, if available). Those receiving publications should share them with other interested persons in vocational education.

An evaluation questionnaire will be included with each publication. Local feedback is important for a complete evaluation and to see if our purposes have been fulfilled.

The current benefits are as follows:

(1) The development of researchers for continued small or larger research projects.

(2) Enthusiasm was generated for further research projects.

(3) The involvement of education with industry where it was applicable.

(4) Research projects were stimulated with a small amount of money.

The long-range benefits will be:

(1) For adoption of the project by local schools as presented.

(2) For adaptation of the project to local school districts and adopted for new and exciting classroom teaching.

(3) For local school administration to budget for research and conduct the mini-grant project at the local level.

(4) For school children to be stimulated to learn and to think constructively by new, creative and innovative methods of teaching.

3. In-house research

a. Deficiencies of vocational-technical teachers in the State of New Mexico.

b. Telephone survey—surrounding states as to length of vocational teachers' contracts.

c. Telephone survey—surrounding states as to amount of state monies appropriated by their state legislative body for vocational education.

d. Researching, coordinating and writing of State Plan for the Administration of Vocational Education in New Mexico. FY 1970–1971

e. Development of a survey instrument for information needed for the Federal Annual Report. It was administered to all vocational teachers, tabulated by State Supervisors, and the Federal Annual Report was written and compiled by the RCU Director.

f. Development of a questionnaire in regard to new vocational program requests for Fiscal Year 1971–1972. It was administered to superintendents, principals and vocational coordinators of local vocational programs; tabulated by RCU personnel.

g. Coordinating, editing and publishing of "Policies and Procedures for the Operation of Vocational Education in New Mexico." FY 1970–1971

h. Coordinating and writing of vocational news.

i. Researching, coordinating and writing of "A Look at Vocational Education in New Mexico". 1969 and 1970

j. A survey of manpower needs in industry was in progress for Fiscal Year 1969–1970 and Fiscal Year 1970–1971. This is in-house research and is related to previous surveys for the Master Plan.

4. Special projects

a. EPDA—Part F.—An EPDA, Part F proposal was submitted to the Federal office for the upgrading of 300 vocational teachers in relation to new work techniques and equipment. A Technical Assistance Grant, EPDA, Part F was approved.

b. Television.—The RCU Director was in charge of a weekly television program promoting vocational education during Fiscal Year 1969–1970. For Fiscal Year 1970–1971, the series was renewed for 36 weeks. The RCU Director was again in charge. The programs are shown at 1:00 p.m. on Tuesdays, 11:20 a.m. on Wednesdays, and 9:30 a.m. on Thursdays via Channel 5, KNME, Albuquerque, New Mexico. The KNME staff is to be commended for the free time allotted to promote vocational education in New Mexico.

c. Federation of Rocky Mountain States, Inc.—It consists of Colorado, Idaho, Montana, New Mexico, Utah and Wyoming. Arizona and Nevada have also given approval, although they do not belong to the Rocky Mountain States. This organization is headed by Former Governor of New Mexico, Jack M. Campbell.

This proposal is an Eight-State Project in cooperation with the Four Corners Regional Commission. The proposal is to be submitted to the U.S. Office of Education for funding. If funded, there will not be any cost to the eight states involved.

The duration of the proposal is to be 24 months. It is to begin April 1, 1971 and end March 31, 1973. Federal funds requested are $59,174 for a two-year period.

The Federation of Rocky Mountain States, Inc. will be the project applicant organization located in Denver, Colorado. The Occupational Education Committee, as well as William Rapp, Vice President of the Federation of Rocky Mountain States, will be Project Directors of which Hilda Majors, Director, Research Coordinating Unit, will be the New Mexico Project Director.

The purpose of the project will be to improve the image of Occupational Education or the World of Work Education through the use of film and media materials which will inform the public and the Eight-State Regions. The materials to be developed will be directed to the educational structures of the Rocky Mountain States.

d. *Economic Development Administration (EDA).*—The RCU Director is working with the director of an EDA project in Socorro and will be involved in evaluation and dissemination of the project report.

e. *Exemplary.*—The Research Coordinating Unit is in charge of exemplary programs and will be responsible for evaluation and dissemination.

5. Dissemination of research

The Research Coordinating Unit has established a current mailing list of 2,500. The list is as follows: State Vocational Supervisors and Assistants, State Advisory Council for Vocational Education, State Board of Education, All Divisions of the State Department of Education, State Department of Finance, All State Government Agencies, Federal Government, ERIC, All State RCU Directors and Vocational Directors, Local School Administrators, Universities, Area Vocational

Schools, Other Special Schools, Teacher Trainers, Vocational Teachers, RCU Advisory Committee and Four Corners Regional Commission.

In 1969–1970, the RCU disseminated 64,898 items of research—State Plan, Policies and Procedures, vocational newsletters and other publications, as well as filling in-state and out-of-state requests.

The RCU will enlarge the mailing lists for the next fiscal year to include key business and industry personnel, civic organizations, union officials and others who are in the position to promote and help vocational education.

6. Vocational education teachers

Vocational Education teachers have become involved in research due to the mini-grant project. It is felt that the research will be used and read because of the close association with vocational teachers in New Mexico. The mini-grant project had wide publicity and vocational teachers are aware of current research being conducted.

NEW MEXICO STATE ADVISORY COUNCIL FOR VOCATIONAL-TECHNICAL AND ADULT EDUCATION

COMMENDATION

The sucess of the Vocational Education program in New Mexico is nationally recognized in terms of pupils served, support by the public, jobs filled by graduates and success of graduates. There are new school courses and many new and promising activities going on in the State which should prove highly beneficial to the occupational readiness of our students.

The recommendations that follow are intended to encourage programs and services which will allow more people to profit from the present and planned offerings in occupation education.

RECOMMENDATIONS

In order to carry out the planned program of Vocational Education in the State of New Mexico, it is mandatory that predictable funding be provided at the Federal level. The unfortunate delay of at least eight months in finalizing the appropriation has a disastrous effect upon the development and promotion of Vocational Education in this State.

The Division of Vocational Education should accelerate its efforts to develop and implement a more effective information system which centralizes the information required for planning.

The system should provide means for obtaining and using facts which will better define and measure:

(a) Manpower needs, trends, and projections.

(b) Skills, attitudes and basic education essential for effective work in modern occupations.

(c) Motivating influences on individual's occupational choices.

Everbody in the State needs to be more informed about Vocational Education needs and programs and plans for new directions and new opportunities. Special efforts should be made to inform employers that today secondary Vocational Education is more than the old industrial arts shop whose only relationship to jobs had to do with its teachers and promoters.

ACTIVITIES

Evaluations

Postsecondary schools.

Secondary schools.

Annual Report

Publicity

Public hearings.

Thirty-seven (37) radio stations in the State are scheduled for daily Public Service Spots for Vocational Education during the year.

Flyer—"New Mexico's Untrained Youth".

Newspapers—News items—Vocational News.

Television Shows (2).

Meetings

New Mexico State Advisory Council for Vocational-Technical and Adult Education has held three meetings.

New Mexico State Advisory Council Executive Committee has held four meetings.

Members

The State Advisory Council elected to add additional members bringing the total to 25 including one representative of youth.

Actions

Subcommittees were established for each area in Vocational Education.

The Council recommended the expansion of programs.

The Council recommended and was successful in establishing a position for a Director of Industrial Development. The chairman of the Council is a state leader in this field and works closely with the director in setting up training programs for new industries coming into the State.

The services of Richard Zimpel, a participant in the EPDA Grant-Doctoral Program, will be funded by the Council for a four-month internship with the Council and Vocational Division.

The chairman and other members of the Council have assisted the State Director of Vocational Education with legislative documents.

National and regional conferences for Advisory Councils have been regularly attended.

The Code of Bylaws for the Council has been revised.

NEW YORK

State Director—Robert S. Seckendorf

PROGRESS IN NEW YORK STATE IN OCCUPATIONAL EDUCATION SINCE THE ENACTMENT OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

INTRODUCTION AND OVERVIEW

The Vocational Education Amendments of 1968 contain clear purposes and permit states wide latitude and flexibility in determining the way in which the purposes are to be implemented in the states. We had this same belief about the basic enactment in 1963 but find that the 1968 Amendments are much improved. The provision for long range and annual planning, as an example, has been of great value to our State. It has helped to set Statewide priorities, make the most effective use of the funds available and has assisted local agencies in developing programs consistent with State priorities as well as local needs.

The elimination of purpose by purpose matching, while not of major concern to New York State, has assisted many states in developing new programs.

The inclusion in the 1968 Amendments of special categorical programs was of great assistance in setting new directions and permitting the states to test new programs in specific areas. The significant amounts of money now available for research which may be used at the discretion of the State has been helpful.

The extent of program accomplishment in New York State since the enactment of the 1963 Act and the 1968 Amendments have been significant. Briefly and in broad terms, the following are some of the accomplishments which are detailed later.

As a financial practice, New York State does not use the Federal vocational dollars to "reimburse" local agencies for expenditures made nor are funds used to "share" in the cost of maintaining existing programs. Smith-Hughes and George-Barden financial practices were eliminated in 1964 and since then Federal funds have been used as grants to local agencies to carry out specific programs and projects. Funds are allotted based on the priorities in the long range plan and the objectives in the annual plan. These funds are paid to local agencies without a requirement of local matching or for that matter generating any of the initial cost of installing new or expanded programs. In other words, the funds are allotted on a 100 percent basis, based on a budget submitted by a local agency.

In New York State, over 732,000 persons are enrolled in vocational education programs (including home economics—useful) at all levels. Just about half the students in the 11th and 12th grades of high school are in vocational programs. Enrollments in the community college occupational education programs are now close to 70,000. A hundred thousand adults are served in public occupational education programs.

Eighty eight percent of the local agencies at the secondary level provide programs in four or more occupational fields—with choices of anywhere from 10 to 30 different specific occupational courses available. Eighty percent of the secondary level programs provide special courses for disadvantaged and handicapped as well as additional programs for adults. Over 60 percent of the public two-year colleges provide a diversity of occupational education programs in four or more major fields.

The percentage distribution of enrollments among the several occupational fields has shifted with greater proportions of students now enrolled in business and in health occupations.

There has been completed or presently underway about $100 million of construction of area skill centers organized to serve secondary schools across the State. While such area centers now are available in every region of the State and number a total of 70, only about half are in permanent new facilities.

Special targeting of Federal money has permitted new and expanded programs in the cities. Special efforts have been made to design and implement new programs directed at disadvantaged and handicapped students. Almost three quarters of the Federal funds earmarked for program development is directed to the large urban centers.

Close to $300 million are spent in New York State for all occupational education, of which less than 10 percent is Federal. This expenditure represents $11 of State and local money for every Federal dollar received in New York State for occupational education.

While much has been done, much still remains to be accomplished. The system of utilizing Federal vocational education funds in New York State has helped to generate an expanded and improved program, but State and local dollars to sustain programs financed on a 100 percent basis without the need for local matching are limited. To accomplish what must yet be done, the share of Federal funds in support of occupational education in the states must increase. New York can no longer sustain the rapid expansion of the 1960's when the Federal share is less than 10 percent of the total expended.

The financial plight is the most significant problem to be faced. Constitutional tax limits in cities, overstrained taxpayers and a general tightening of the purse strings everywhere—represented by a new round of school budget defeats—make it difficult to generate new dollar support for change and expansion of occupational education. Only the infusion of new and massive amounts of Federal dollars will help at this point.

If the states are to do the job outlined by the Congress, then priorities must shift. If 80 percent of the students moving through our schools will not complete a college education, then far more than 4 percent of the Federal educational dollars must be directed to preparation for employment.

LEGISLATIVE IMPROVEMENT

There is still left over from earlier days some provisions which need not be continued. One example is the matching provision, not only in the base section, Part B, but in several of the categorical sections as well. The vocational education statute is one of a few which still requires 50–50 matching with State and local dollars. While matching is not a problem in New York State, from a national point of view, it is believed that local agencies would be able to accomplish far more if States did not have to demonstrate a match of dollars. Many States still require the match at the local level. Probably no State is making less effort than $4 of State and local funds for every dollar of Federal money expended in the State. If this is the case, then there is little need to continue an old practice of requiring demonstrated matching.

The categorical programs are of great help in targeting on specific problems or areas of sensitivity. It is urged, however, that consideration be given in any major overhaul of the 1968 Amendments to the shifting of the categoricals into the base Act, Part B, with appropriations now under categories added to the base grant to the State. This action would permit the continuance of special programs but would also permit the State increased flexibility in setting priorities.

NEW YORK STATE POLICY

Submitted as an attachment to this statement is a copy of a position paper on occupational education recently adopted by the Regents. This paper describes clearly the goals for occupational education in New York State for the 1970's. These goals clearly meet the intent of Congress spelled out in the Vocational Education Amendments of 1968.

Table I, attached, charts enrollments in occupational education for the period 1965 to 1970. It demonstrates continuous overall growth and at the same time illustrates the shifts in emphasis which has taken place as new programs were developed.

Table II, also attached, graphically illustrates the distribution of sources of funds in support of occupational education in New York State for the 1965–1970 period.

OCCUPATIONAL EDUCATION ENROLLMENTS BY LEVEL AND BY TYPE OF PROGRAM 1965 TO 1970

TABLE I

The purpose of this table is to indicate the progress in occupational education in terms of changes in enrollments for each of the population groups by program area from 1965 to 1970.

The enrollments on this table are not duplicated since disadvantaged and handicapped students have been subtracted from the secondary, post-secondary and adult levels, and are listed under Special Needs.

Total enrollments from 1965 to 1970 have steadily increased, resulting in an overall growth of 59% during this period. The increase in total enrollments from 1968 to 1970 has been 54,882. Occupational enrollments (exclusive of Home Economics Useful) have increased by 22,817 from 1968 to 1970.

At the secondary level, enrollments have also increased from 1968 to 1970. In 1970, however, a greater portion of the secondary students appear under Special Needs than in previous years. The change is due to the new concept of reporting all disadvantaged and handicapped students in occupational education programs, rather than only those enrolled in special classes. In 1970, 48,002 Special Needs students were enrolled at the secondary level resulting in a total secondary occupational enrollment of 349,731.

The new concept of reporting Special Needs students applies to each of the major program areas listing enrollments for 1970.

There has been a steady growth in total occupational education enrollments at the post-secondary level. From 1968 to 1970, enrollments increased by 31%. Each of the major post-secondary program areas also experienced continued growth from 1968 to 1970.

TABLE I.—OCCUPATIONAL EDUCATION ENROLLMENTS BY LEVEL AND BY TYPE OF PROGRAM, 1965 TO 1970

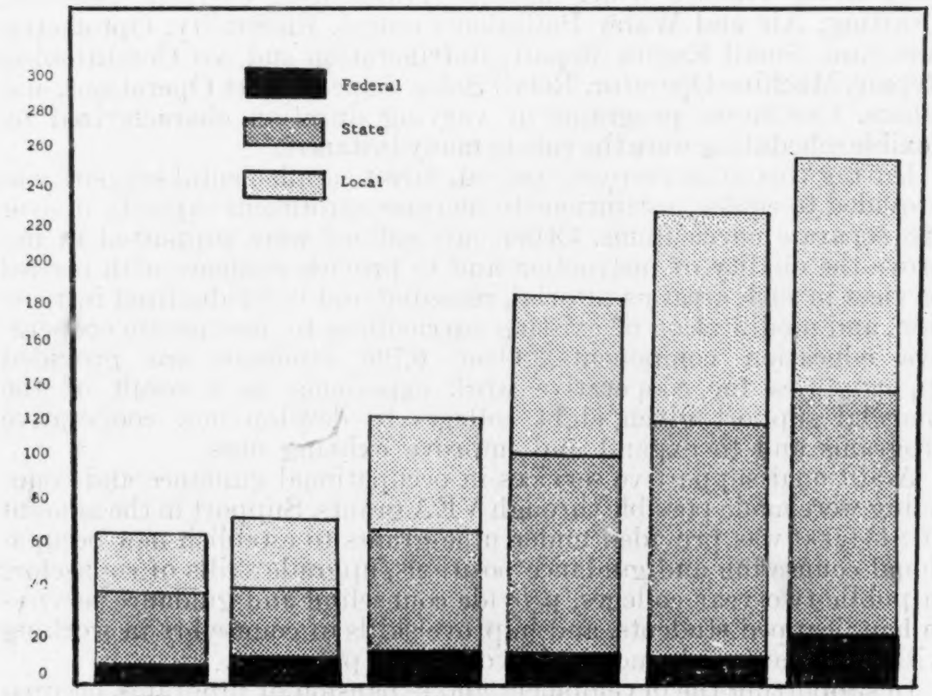
Level and type of program	1965	1966	1967	1968	1969	1970
All programs	461, 050	496, 412	617, 098	677, 585	690, 533	732, 467
Secondary	309, 828	315, 140	397, 846	447, 087	468, 482	450, 705
Postsecondary (full time)		29, 729	32, 520	37, 863	42, 097	49, 699
Adult	151, 222	151, 523	158, 689	163, 519	143, 316	150, 766
Special needs			28, 643	29, 116	26, 836	68, 873
Agriculture	10, 927	12, 984	13, 622	13, 673	14, 877	15, 350
Secondary	8, 972	8, 692	9, 047	9, 261	10, 077	10, 843
Postsecondary (full time)		1, 845	1, 991	2, 038	2, 215	2, 128
Adult	1, 955	2, 447	1, 710	1, 610	1, 752	1, 794
Special needs			874	764	833	585
Distribution	14, 034	17, 544	50, 811	47, 040	46, 707	49, 101
Secondary	11, 742	12, 673	42, 827	36, 098	35, 842	35, 440
Postsecondary (full time)		1, 625	2, 137	5, 214	5, 177	6, 343
Adult	2, 292	3, 246	4, 732	4, 834	4, 800	5, 077
Special needs			1, 115	894	888	2, 241
Health	6, 081	10, 275	11, 860	14, 379	16, 040	19, 115
Secondary	4, 793	5, 164	4, 850	5, 305	5, 919	7, 285
Postsecondary (full time)		4, 526	5, 215	6, 688	7, 463	7, 372
Adult	1, 288	585	1, 065	1, 694	1, 887	2, 025
Special needs			730	692	771	2, 433
Home economics useful	[1] 71, 216	[1] 79, 033	158, 974	168, 326	193, 701	200, 391
Secondary	[1] 45, 027	[1] 50, 211	102, 754	111, 490	145, 262	148, 976
Adult	[1] 26, 189	[1] 28, 212	39, 463	39, 857	33, 965	35, 086
Special needs			16, 757	16, 979	14, 474	16, 329
Home economics gainful			2, 949	5, 348	15, 237	16, 238
Secondary			1, 207	1, 680	2, 989	3, 476
Post secondary (full time)			651	1, 050	3, 506	3, 356
Adult			151	1, 560	5, 205	5, 235
Special needs			940	1, 058	3, 537	4, 171
Office	253, 147	262, 912	266, 507	269, 017	261, 796	280, 023
Secondary	192, 390	189, 807	186, 646	185, 521	191, 060	176, 424
Post secondary (full time)		10, 676	12, 131	13, 586	9, 562	16, 302
Adult	60, 757	62, 429	65, 440	67, 932	59, 787	61, 563
Special needs			2, 290	1, 978	1, 387	25, 734
Technical	13, 111	21, 056	20, 669	29, 898	23, 326	24, 963
Secondary	7, 014	7, 390	6, 807	15, 778	9, 387	8, 920
Post secondary (full time)		10, 179	9, 469	9, 287	11, 090	11, 596
Adult	6, 097	3, 487	3, 638	3, 960	2, 456	2, 469
Special needs			755	873	393	1, 978
Trade and industry	92, 534	92, 608	91, 706	129, 904	109, 047	114, 862
Secondary	39, 890	41, 203	43, 708	81, 954	67, 946	59, 341
Post secondary (full time)		288	926	0	3, 084	2, 602
Adult	52, 644	51, 117	42, 490	42, 072	33, 464	37, 517
Special needs			4, 582	5, 878	4, 553	15, 402
Other:						
Special needs					9, 802	
Secondary						12, 424

[1] Includes home economics gainful and useful.

TABLE II.—EXPENDITURES FOR OCCUPATIONAL EDUCATION PROGRAMS BY SOURCE OF FUNDS: STATE OF NEW YORK, FISCAL YEARS 1965–70

Year	Total	Federal	State	Local
1965	$69, 509, 000	$11, 803, 000	$29, 341, 000	$28, 365, 000
1966	73, 607, 324	17, 136, 324	27, 687, 000	28, 784, 000
1967	125, 773, 000	17, 734, 000	54, 363, 000	53, 677, 000
1968	187, 487, 000	17, 635, 000	87, 239, 000	82, 623, 000
1969	234, 958, 000	17, 023, 000	109, 903, 000	108, 032, 000
1970	264, 327, 099	23, 952, 948	120, 908, 200	119, 465, 951

TABLE II
Expenditure for Occupational Education Programs by Source of Funds
New York State - Fiscal Years 1965-70
(in millions of dollars)



POST-SECONDARY ACCOMPLISHMENTS

Significant expansion in post-secondary occupational education programs, activities, and related supportive services is attributable in large part to the provision of direct funding support made available under the Vocational Education Act of 1963 and the subsequent Amendments of 1968. Since 1965, full-time degree credit enrollments in occupational programs at public two-year colleges have increased twofold, rising from 28,000 in 1965 to over 54,000 in 1970. Part-time student enrollment in degree credit vocational programs, all of which serve adults, rose from 30,600 in 1965 to over 51,000 in 1970, an increase of over 65 percent. Full- and part-time vocational students enrolled in certificate programs in 1970 totaled 12,500. Large increases in the latter programs have occurred since 1965 following the establishment of Urban Centers, and with the introduction of a wide range of short-term occupational programs at public two-year colleges.

Programs have been implemented, expanded and improved to keep pace with rising demands by post-high school youth and adults for post-secondary training in a broad range of occupations. Over 48 new programs were started during the current and last fiscal years. These included 23 newly instituted degree programs in Environmental Technology, Human Services, Medical Secretarial, Secretarial Science, Police Science, Hotel Technology, Electrical Technology, Business, Data Processing, Civil Engineering Technology, Public Services Careers, Electro-Mechanical Technology, and Dental Laboratory Technology.

Support was provided for new certificate programs in such areas as Machine Tool Operations, Medical Assistant, Dental Assistant, Child Care Aide, Teacher Aide, Medical Transcriber, Clerical Assistant, Drafting, Air and Water Pollution Control, Electricity, Optometric Assistant, Small Engine Repair, Refrigeration and Air Conditioning Repair, Machine Operator, Retail Sales, Supermarket Operations, and others. Certificate programs of varying duration characterized by flexible scheduling were the rule in many instances.

During this same two-year period, direct supplemental support was provided to enable institutions to increase enrollment capacity in over 128 separate curriculums. Other curriculums were supported to improve the quality of instruction and to provide students with needed services in such areas as tutorial, remedial and individualized instruction, and modification of existing curriculums to incorporate cooperative education components. Over 6,700 students are provided opportunities for cooperative work experience as a result of the financial support given eight colleges to develop new cooperative programs and to expand and improve existing ones.

Additional supportive services in occupational guidance and counseling were made possible through VEA grants. Support in the amount of $444,000 was provided under nine grants to establish new occupational counseling and guidance positions, upgrade skills of counselors in public two-year colleges, provide counseling and guidance services to handicapped students, and improve skills of counselors in working with disadvantaged students in vocational programs.

In supporting the development and expansion of programs, occupations experiencing severe shortages of skilled workers as well as new and emerging occupations were singled out for special attention. Funds were used to develop new programs and prepare instructional materials in Health, Human Services, Environmental Technology, Minority Small Business Management, Cooperative Education, Technical, and Trade areas. Efforts to develop articulated curriculums between secondary and post-secondary institutions received encouragement and support. During the past two years aid was provided to 53 health related curriculums and to 53 trade and technical programs at two-year institutions.

Virtually all students in post-secondary occupational education programs are aided at some time during their training by the support provided under VEA. Many have had opportunities which otherwise might not have been available to enter occupational programs and receive initial training for a wide range of occupations, to upgrade their skills, or to be retrained for new job skills. Funding of post-secondary programs during the past two years had direct and immediate effect on over 33,400 occupational education students. Among the various categories of students served, approximately 3,500 were classified as disadvantaged youth, 2,000 were disadvantaged adults, over 7,000 were general adult students, 355 were visually or physically handicapped, while the remaining 20,545 were identified as general post-secondary occupational education students. Program development work is currently underway to focus on the occupational education needs of returning veterans. This should result in greater opportunities for veterans to build upon and reinforce the training received in the military service in pursuing related civilian occupations. One attempt will be to restructure existing curriculums to enable former medical corpsmen to receive training as physician assistants while similar opportunities are being created to capitalize on military occupational specialities in designating new occupational education programs.

PROGRAMS FOR THE DISADVANTAGED

In New York State, programs for disadvantaged and handicapped persons were established under the Vocational Education Act of 1963 using the designation "persons with special needs."

These programs assisted persons who failed to achieve because they had academic, socio-economic, or other handicaps that prevented them from succeeding in the regular occupational education programs. Unique occupational programs were created which provided the necessary environment for learning for persons who had special educational handicaps. Specially designed occupational programs established a climate in which occupational competencies could be attained.

Before the 1968 Amendments to the Vocational Education Act provided separate categorical set-asides for the disadvantaged and handicapped, several thousand individuals classified as persons with special needs were scheduled in these types of programs.

In fiscal year 1970, New York State initiated 86 new and expanded programs, bringing the total of disadvantaged adults and secondary school students served to over 42,000.

In fiscal year 1971, the number of disadvantaged youth enrolled in 20 new programs was 21,077, and 24,428 youth were participating in 22 other programs for which expanded services were provided.

The number of disadvantaged adults in three new programs were 1,275 and three expanded programs account for 325 enrollees.

The brief statements that follow indicate the nature of sample programs for disadvantaged persons which have been initiated in various places in New York State:

A special short-term program offers pre-apprenticeship readiness for disadvantaged, unemployed or underemployed out-of-school youth who seek careers in building trades occupations. The program prepares youth so they may qualify for apprentice programs established by a joint apprenticeship committee of building trades unions.

An occupational learning center was started for students in a large city which serves the needs of disaffected students who are not able to succeed in the regular school program. Students receive individualized occupationally oriented instruction. This is a combination of work experience, occupational education, basic skills and counseling. Early indications show marked attendance improvement, a reduction in disruptive attitudes and significant increase in achievement.

A multi-occupational program was established for students who are below their grade level chronologically and who have been identified as potential drop-outs. The offerings will prepare workers at the service level in building maintenance, helpers for plumbers, masons, and small appliance repair establishments.

A secondary program serves environmentally disadvantaged students who can profit from occupational education. Students have the opportunity for exploratory experiences in up to three occupational areas chosen from a total of six areas. Students progressing in the program may enter a regular occupational course or select one program to devote approximately one-half day to occupational activities which may include cooperative work experience.

A comprehensive occupational program is offered for educationally and culturally disadvantaged young adults and high school dropouts. Entry-level skills are taught with a variety of employment possibilities, such as automotive, office, distribution, food services and health services.

A special occupational program for migrants and their families is conducted for four months. It familiarizes the participants with the tools, equipment and operations in four occupational areas. The types of occupational competencies are applicable to wide geographical areas of the country.

A major city operates an integrated office program which begins with potential dropouts in the ninth grade. The program integrates current separate business subjects into a four-year curriculum using self-pacing learning materials and procedures.

An urban district provides a summer program which makes available a full range of occupational offerings using the occupational education facilities. Enrollees are disadvantaged students from public and private schools in the city. Fifteen courses are taught with several levels of competence being taught in each subject area.

A pilot instructional project was designed primarily for inmates of a county penitentiary who can profit from occupational training. The program provided short-term courses in food services, clothing maintenance, building maintenance, agricultural occupations and automotive occupations.

Occupational education programs in the large cities provides training and employment during the summer period to serve the special needs of students. Cooperative employment and training under direct supervision are given in typing, bookkeeping, business operation, auto mechanics, welding, carpentry, and landscaping services.

In many of the programs for the disadvantaged existing facilities are used increasingly during the summer months and after regular school hours particularly in the major cities. Community organizations, business and industry provided additional facilities for cooperative work experience programs.

Programs for the disadvantaged are in many cases directed toward providing short-term, entry-level job skills or at upgrading existing skills for the purpose of providing increased employability potentials. This, however, does not assume that all programs for the disadvantaged have low ability levels.

To further assure that the occupational training offered to disadvantaged persons would be in accord with the manpower needs of the labor market, close cooperation is established between the schools, industry and public employment service agencies.

In order to provide disadvantaged persons with the maximum opportunity in school, provisions were made for self-paced scheduling to decrease the possibilities of failure or loss of interest due to discouragement. Assistance is provided in the form of work-study programs for the financially disadvantaged students.

PROGRAMS FOR THE HANDICAPPED

Since the 1968 Amendments were enacted, programs for the handicapped as a separate category have grown rapidly in areas that have large concentrations of population. Some new types of emphasis have been shown in more occupational programs for the mentally retarded, others for those with brain damage, for the emotionally disturbed and for other handicapping conditions for youth and for adults.

In 1970, New York State added new and expanded programs which serve over 5,900 handicapped pupils on the secondary level program and nearly 1,500 in post-secondary and adult programs. The availability of Federal funds under the categorical grants provided for such activities as planning and development, expansion of guidance service, providing in-service teacher education, extension of cooperative work experience for handicapped persons, and specialized skills development for employment in such occupations as maintenance man, electrical helper, carpenter helper, horticulture, landscaping, painting, housekeeping services, health services, clothing services, typing, bookkeeping and auto mechanics.

During the 1971 fiscal year the programs previously begun were continued. Many were additionally extended to provide training and/or other services in newly identified areas. These services included addition of psychological services, testing, extension of guidance and development of programs in new curriculum areas such as child care, food preparation, needle trades and retail sales. Cooperative work experience coupled with availability of re-entry into an occupational training situation, if needed, was a feature of several programs.

Federal funds expended provided support for 54 programs which reached nearly 5,000 persons. New programs were developed which serve youth between the ages of 14 through 21 for jobs previously mentioned plus additional opportunities in animal care, electronics, small engine repair, graphics, silk screen printing and packaging. Three new programs for adults were also developed in each of two of the large cities and one board of cooperative educational services. Over 300 adults will be trained annually for employment in such occupations as furniture repair, office skills, building maintenance, health and home services.

The following programs are random samples of those funded from monies designated for handicapped under the VEA Amendments:

An urban district provides blind students, many with secondary handicaps, occupational oriented courses to develop saleable skills. Laboratory training and experience are provided in areas including transcribing machines, typing, telephone operators, sewing machine operation and assembly line work. Additional on-the-job training opportunities are being developed for employment in hospital service, insurance and retail sales.

A city school program provides staff to conduct activities of occupational exploration and skill development for mentally retarded and physically handicapped pupils in nine specially designed shops.

On-the-job training, guidance and related work constitute program activities for 17 to 21 year-old youth who are out of school and have hearing impairments and language barriers. Follow-up and guidance services are intensively provided to enable the student ample time to develop maturity and attitudes favorable to job success.

A program instructs brain injured, emotionally disturbed, retarded and other handicapped youth in five occupational areas. An occupational education coordinator provides the necessary liaison between the home, school, parent, student and industry.

A rural BOCES conducts a program providing training and skill development for 15–21 year old educable boys and girls in horticulture, building maintenance, housekeeping and food services. Skill development is coupled with job placement and an organized procedure for social and occupational guidance after placement.

An urban program prepares handicapped adults and out-of-school youth over age 16 for the child care occupations.

Brain injured students, five to twenty-one years of age, receive quality occupational training offered by a BOCES located in an area of concentrated population. Program activities aim toward occupational awareness, pre-occupational exploration opportunities, and in-depth occupational training.

Programs are implemented to provide skill training geared to production workshops with the potential of training for basic entry level natural employment for those capable. These programs are generally for trainable mentally retarded youth ages 16–21 as well as selected 14–15 year olds.

PROGRESS IN CONSTRUCTING AREA OCCUPATIONAL EDUCATION FACILITIES

Through funds provided in the Vocational Education Act of 1963 and the Amendments of 1968 as well as the Appalachian Regional Act, the construction program in New York State has been greatly accelerated. Currently 48 secondary level area occupational education centers have been constructed or are under construction.

The 48 facilities will provide a total of 1,250 shops and laboratories and 150 related instructional rooms at a total cost of $102,000,000. Of this amount, Vocational Education Act funds provided $15,200,000 and Appalachian Regional Act funds $8,200,000. The combined Federal financing represents about 25 percent of the total cost, the remainder being financed by State and local funds.

The average number of different occupational education curriculums is 26, varying from 12 to 44 according to the size of the center. The 48 facilities have a building capacity of 25,000 students. Since students attend the centers on a one-half day basis, 50,000 secondary students may be accommodated each day. Twenty-five thousand teaching stations are also available for adult after school and evening programs. Specialized shops and laboratories have been planned for the socio-economic and academically disadvantaged. Attention has been given to construction details that increase accessibility for the physically handicapped.

PROGRESS IN OCCUPATIONAL EDUCATION RESEARCH SINCE 1968

With the advent of the original Vocational Education Act, New York State has maintained an active Research Coordinating Unit

(RCU), known within the State Education Department as the Bureau of Occupational Education Research. Since the amendments to the Vocational Education Act, there has been a new and decisive thrust to the direction taken by occupational research in New York State. Research priorities were directed at established matters relating to inner-city youth, curriculum development in new and unique occupational areas, and disadvantaged and handicapped youth.

Consequently all requests for proposals stemming from the Research Coordinating Unit from 1968 stipulated the priority areas and the great majority of the dollars expended for research were concerned with these areas. Selected research projects undertaken, completed, disseminated through the Educational Resources Information Center (ERIC) system, and in some instances replicated and kept ongoing since 1968 are as follows:

1. "An Innovative Approach to the Development of Curriculum for Occupational Education in the Secondary Schools in a Large Urban Area."
2. "Guided Occupational Training for Slow Learners."
3. "Evaluation Program for Persons with Special Needs."
4. "Collegiate-Vocational Education Training Programs in Urban Areas."
5. "Development of a Cooperative Secondary Two-Year College Retailing Program for the Disadvantaged."
6. "A Study of Student Dropouts from Vocationally Oriented Business Programs at Nassau Community College."
7. "Career Programs in Two-Year Colleges for Persons in Urban Areas."
8. "A simulated Instructional Model for Educating Mentally Retarded Students for Employment in the Hotel-Motel Industry."

For 1971 the Research Coordinating Unit has 11 research projects under contract or grant, 14 research projects underway in-house, 3 research projects funded from other than VEA funds, and 1 research project funded jointly with another state. The RCU is also headquarters for the Department's ERIC system and during the last fiscal year has serviced over 3,000 requests for resources. This form of RCU activity is constantly increasing and a 50 percent increase is projected by 1972.

ACCOMPLISHMENTS IN CONSUMER-HOMEMAKING PROGRAMS

The needs of socially and economically disadvantaged people in New York State justified the utilization of the bulk of the Part F funds to initiate new programs for serving this population. The conditions indicated that new programs at the adult level would have the greatest impact on meeting needs related to improving consumer-homemaking skills. Programs were initiated to provide adults with skills relevant to their role as homemakers, consumers, or dual roles of homemaker and wage earner. Adults in large urban areas and economically depressed rural areas are being assisted in developing resources, knowledge, skills and attitudes as wise consumers, homemakers and family managers.

Programs have been planned and implemented on both a full-time comprehensive and a short-term basis. The adult comprehensive programs are taken to the learner via locations such as housing project centers, laundromats, storefront centers, church facilities, apartments in the community, community education centers, mobile units, relocatable classrooms, and adult education centers. The activities involve among others, individual skill instruction; group demonstrations; field trips; resource speakers; laboratory work; identity of personal, family and community resources; individual advisement; home teaching for the aged and disabled; and follow-up in homes of instructional activities.

Schedules of operation involve daily, evening and Saturday presentations and group activities. The activities accented involve the consumer aspects of home economics.

Men and women participants, in conjunction with an advisory committee, play a major role in developing program content. Instruction is provided by home economics teachers with the help of indigenous aides. The aides are involved in recruiting participants, assisting teachers, and providing child care services. Instructional staffs have also developed learning packages including such media as video tapes, flipcharts, and slide series.

In 1970 ten programs operated in major urban areas and several were in various planning stages. In 1971, twenty-six programs are operating (ten continuing and sixteen new). The six major cities each have multiple centers and all but three of the remaining fifteen largest cities have centers. There is a concentration of programs in the economically depressed areas surrounding New York City. One comprehensive program utilizing a mobile unit is serving a rural economically depressed area. These programs are reaching 10,790 individuals per year.

Resources have been utilized for development of secondary programs for disadvantaged students. There are fourteen programs operating in inner city areas to provide supplemental instruction in consumer education, the dual role of homemaker-wage earner, teacher aides for liaison with community, and a semi-residential home management project for disadvantaged high school girls.

There are six projects operating in rural areas providing instructional activities for migrants, Indians, rural poor and development of independent study material for slow learners. These projects involve 3,705 secondary students.

Two short-term programs operate at the middle school level serving 620 potential dropouts, migrants and academically disadvantaged students.

Ancillary services support the instructional efforts. Curriculum projects involve development of learning packages and in-service materials of a consumer-homemaking education nature. Many of the materials are bilingual. Teacher education projects have been conducted for pre-service and in-service candidates. The projects involved institutes and workshops to improve professionals' and paraprofessionals' ability to work with the disadvantaged. An evaluation project is currently underway to determine the effectiveness of ten of the adult comprehensive program activities.

LONG RANGE AND ANNUAL PLANNING

The VEA '68 requirement that each State submit a State Plan which includes both long range goals and annual objectives was an extremely wise one. It forced the states to analyze their needs, identify their priorities, establish their long range goals and propose annually activities for the achievement of their goals.

The USOE guidelines for the format of the State Plan took the Federal statute literally and called for a three-part document, each part with its own identity and little relationship to the others.

Part I, the administrative section, consists of a substantial duplication of the language in the Federal Regulations.

In addition, there is significant incompatibility between what is known as Part II and Part III in the Federal guidelines. Under the present format, it is entirely possible to write a long range plan which looks at first glance like a carefully developed program with meaningful objectives and indication of significant progress through the five-year cycle. At the same time, it is possible to prepare the annual plan to permit expenditures for the development and maintenance of traditional programs and to satisfy vested interests. The Federal design does not permit a clear display of internal consistency between long range plans and annual program plans.

The five-year plan and the annual program plan for the coming budget year, need to be interwoven and displayed in a fashion that permits the relationship of Parts II and III to be completely obvious.

Major changes have been made by New York in the State Plan format to provide a more viable document. These include:

1. The long range plan and the annual program plan no longer occupy separate sections of the Plan. In the new format, the priorities and objectives of the long range plan are juxtaposed with the related activities, costs, and benefits of the annual program plan.

2. Priorities, objectives, activities, costs, and benefits related to such program elements as guidance, construction, curriculum, etc. are no longer listed in separate sections if the Plan. In the new format all priorities, objectives, activities, costs, and benefits are arranged according to instructional levels: elementary, secondary, postsecondary, and adult. For example, all information concerning guidance at the postsecondary level will be found in the section of the Plan entitled postsecondary, not in a separate guidance section.

3. For each instructional level, elementary, secondary, postsecondary, adult, and multi, information is organized according to population group(s) served: general population, disadvantaged, handicapped, and multi-group (comprising all population groups).

The changed format increases the document's usefulness as a planning instrument by:

(*a*) permitting an overview of the entire program for each instructional level without a search of the long range and annual plans for the various program elements;

(*b*) clearly demonstrating the relationship between long range objectives and activities planned for the coming year toward accomplishment of those objectives;

(*c*) facilitating tabulation of program costs for a given instructional level or population group served.

With respect to state plans, two considerations are submitted. First, the long and detailed assurances or administrative provisions section of a state plan should be eliminated. In almost all cases this section is a retyping of sections of the statute and the regulations. Assurances can be handled more simply with a letter of agreement to comply with statute and regulations. Second, the long range and annual plan provision should be maintained and states should continue to be required to submit such material annually as a basis for their allotments. The planning requirement established by the Amendments of 1968 is one of the strongest aspects of the statute. Without its continuance as a requirement, the intent of Congress could be too easily set aside in some quarters in favor of doing busines in the old ways. Planning has become a strong component of the administrative structure of occupational education in New York State and it has proved its worth. With or without such a requirement, New York will maintain the practice of continuous long range and annual planning.

NEW YORK STATE EDUCATION DEPARTMENT, OFFICE OF OCCUPATIONAL EDUCATION, DIVISION OF OCCUPATIONAL EDUCATION PLANNING—ILLUSTRATIONS OF STATE PLAN FORMAT—PARTS II AND III

[Level: Secondary. Population served: Disadvantaged]

Area of need	Objectives	Outcomes			Activities	Costs	Benefits
		Current	1971	1975			
Contribute to reduction of the high dropout rate in public secondary schools.	An increasing number of potential dropouts in grades 9 and 10 will be enrolled in occupational education programs.	16,375	18,000	27,000	Administer supplementary services and programs to provide orientation, remediation, and other aids intended to give potential dropouts the requirements for successful participation in occupation education: Boces, Big Six. Initiate cooperative work experience and work study programs in school districts with high dropout rates: Cooperative—Boces, Big Six. Work study— Boces, Big Six.	-------------	Potential school dropouts will be identified and provided a program at a sufficiently early age to encourage completion of high school and or to leave school with a salable skill.

REGIONAL AND LOCAL PLANNING

The administration of the 1968 Amendments and allocation of funds in New York State are based on the long range and annual plan prepared each year. Priorities which consider the needs of people and the manpower requirements in the State are identified clearly in the plan. Coupled with this concept is the fact that the Federal funds are not used on a reimbursement or sharing of the cost basis. Federal vocational funds are allocated to local agencies on a 100 percent basis as grants for specific purposes. In this manner due consideration is given to the factors specified in the statute and funds are directed to priority needs and target areas.

In order to carry out a total system of integrated planning, and follow the statutory requirement of long range plans at the local level, New York implemented a system of regional planning. The State was divided into 19 planning regions which are for the most part compatible with the overall planning regions established for all state agency planning. (A map of these regions is attached.)

It should be pointed out that New York State required long range regional planning when the Vocational Education Act of 1963 was enacted. The present system is a perfecting of the earlier arrangement and now includes *all* educational agencies within each specified region. Included are public secondary schools, two-year community and agricultural and technical colleges, urban centers, hospital schools and private trade and business schools.

In each region, all agencies desiring to be eligible for allocation of Federal vocational funds must participate in the planning activity. The regional planning activity was conducted by full-time planners, the cost of which was supported in full with VEA funds. As part of the plan, each agency is designated to serve a portion of the population or provide a level of program. In this way, overlapping or duplication of services is avoided to a great extent. A copy of the plan outline is attached.

Approval of the plan establishes the eligibility of agencies to submit local plans and proposals for new, expanded or modified programs to implement its identified function in the region.

The regional plans serve another purpose as well. They provide specific inputs of data for use in updating the State's long range plan and assists in identifying activities and budget allocations in the State's annual plan.

It is believed that the coordinated planning system described provides for the effective administration of occupational education in New York State.

THE UNIVERSITY OF THE STATE OF NEW YORK—NOVEMBER 1970 REVISION

Division of Occupational Education Supervision

SUGGESTIONS FOR ORGANIZING A REGIONAL LONG-RANGE OCCUPATIONAL EDUCATION PLAN

(Planners should be thoroughly familiar with the State Plan)

PART I

The final document which is developed might contain introductory materials such as preface, foreword, membership of advisory and other committees, planning personnel, purposes and objectives of the regional plan, and related data.

PART II.

A description of the region's occupational needs, based on demographic and economic data.

1. Population to be served and their needs (density, changes, ethnic composition, economic levels, education, population by age and sex, size of disadvantaged and handicapped populations, unemployment, welfare, aid to dependent children, and the like.)
2. Total enrollment data for each agency with projections, holding power (dropouts), and educational plans for K–12, private schools, urban centers, two-year colleges, and adult.
3. Interest of prospective enrollees in occupational education.
4. Business, health, industry, and manpower opportunities.
5. Major occupational requirements.
6. Trends—all new developments which will affect employment, e.g. new mental hospitals, new universities, urban development projects, new shopping centers, construction, and the like.
7. Indicate the extent to which the Cooperative Area Manpower Planning System (CAMPS) for the region has been used.

PART III

An assessment of the ability of the region's current occupational programs to meet the needs described in PART II and of the extent to which new and expanded programs are needed.

Purposes and objectives of occupational education for each agency (now and for the future).

PART IV

A five-year plan (July 1971-June 1976, inclusive), projecting programs which will meet the region's occupational needs and clearly indicating the role of each agency in meeting these needs.

A time schedule for the introduction of programs need not be indicated, although priorities might be established with related rationale.

It is understood that changes in a regional long-range plan can and should be made on the evidence of changes in need. Such evidence should include adequate supportive data.

Section A

1. Elementary

1.1 Plan to acquaint all students with the world of work as concomitant learnings.

2. Early secondary

2.1 Continue 1.1 above.

2.2 Prevocational, exploratory.

3. Secondary

3.1 Local—courses where shared services concept is not likely to apply including regular secondary, disadvantaged, and handicapped.
3.2 BOCES—occupational education for standard, regular, general students, the disadvantaged, and the handicapped.

4. Post-secondary—all two-year college programs (public and private), and urban center programs

4.1 Disadvantaged.
4.2 Handicapped.
4.3 Certificate programs.
4.4 Degree programs.

5. Adult—all agencies serving adults and out-of-school youth including MDT, OJT, apprentice preparation and the like

5.1 local secondary.
5.2 BOCES.
5.3 Public and private two-year colleges.
5.4 Correctional institutions.
5.5 Business and industry.
5.6 Other.

Section B

1. Multi-level—involving more than one level, not necessarily all levels

1.1 Guidance—begin with elementary and continue career ladder concept—quantitative and qualitative placement in terms of employment opportunities—follow-up data.
1.2 Curriculum development and adjustment.
    Use data from 1.1.
    Continue, modify, expand, terminate programs.
    Programs for new and emerging interests of individuals and employment opportunities.
    Combination courses—modules from more than one subject area.
1.3 Other purposes and parts of the 1968 Amendments—while these may be multi-level in nature, individual parts may relate to a single level.
    Consumer and homemaking.
    Cooperative education.
    Work-study.
    Construction.
    Exemplary.
    Research.
    Other.
1.4 Evaluation in terms of the objectives of each agency. See Part III, second paragraph.

Section C

1. Plans for coordination among the agencies with resolutions and/or statements of intent by each

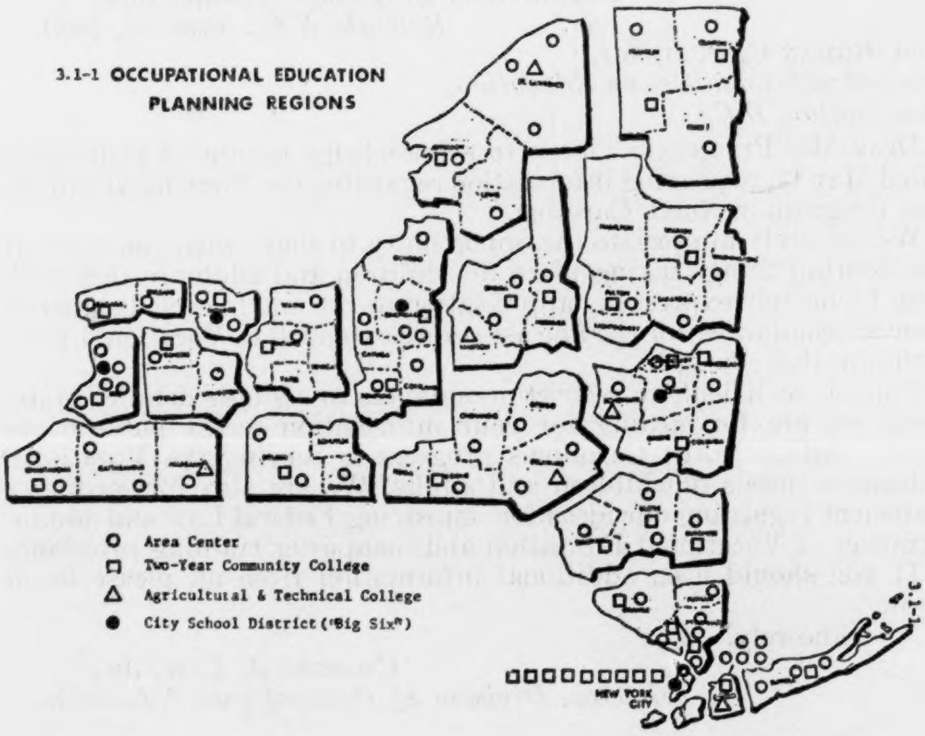
1.1 Evidence of consultation.
1.2 Understandings among the agencies.
1.3 Plans to avoid needless duplication.
1.4 General agreements for the future.

PART V

A plan for the current fiscal year (July 1970–June 1971), consistent with the five-year plan.

PART VI

This part might include sections devoted to bibliography, appendix, acknowledgments, and the like.


3.1-1 OCCUPATIONAL EDUCATION PLANNING REGIONS

○ Area Center
□ Two-Year Community College
△ Agricultural & Technical College
● City School District ("Big Six")

NORTH CAROLINA

State Director—Charles J. Law, Jr.

Department of Public Instruction,
Raleigh, N.C., June 14, 1971.

Hon. Roman C. Pucinski,
General Subcommittee on Education,
Washington, D.C.

Dear Mr. Pucinski: This is to acknowledge receipt of your letter dated May 19, requesting information regarding the Vocational Education Program in North Carolina.

We sincerely appreciate the opportunity to share with you some of the exciting things taking place for children and adults in this field. May I sincerely express my appreciation to you and to each member of your subcommittee for the fine assistance extended to Vocational Education in this country.

Since it is difficult to restrict acceptances to a single detailed statement, we are forwarding for your information recent publications which outline North Carolina's progress in serving the Vocational Education needs of children and adults. We are also forwarding a statement regarding our ideas for improving Federal Law and administration of Vocational Education and manpower training programs.

If you should need additional information from us, please let us know.

Sincerely,

Charles J. Law, Jr.,
Director, Division of Occupational Education.

Ideas for Improving Federal Law and Administration of Vocational Education—North Carolina

GENERAL

Sub-Section 102.3—Definitions

(i) "Disadvantaged Persons"—In order for programs to be truly operational, it is necessary for a clear definition for disadvantaged persons be established. It is difficult for Vocational Education Agencies to adjust their thinking from target schools for ESEA purposes to the person-oriented definition for Vocational Education. It is recommended that the definition for Vocational Education be consistent with that for ESEA.

Sub-Section 102.12—Requirements of work-study program

(c) Limitation of hours and compensation with the increase in hourly wages—It is no longer realistic to restrict Work-Study students during the regular school year to $45.00 per month, or $350.00 per academic year. The law should be revised to leave in the "no more than 15 hours in any work" requirement and delete references to maximum amount earnable. A possible additional restriction might be that the compensation for such employment will not exceed the States minimum wage rate.

POST-SECONDARY EDUCATION

Prior to 1967, the greater number of post-secondary institutions in North Carolina had been established. In 1967, the Legislature increased this number by creating seven new institutions and again in 1969 by approving four additional institutions. The Legislature now in session presently has under consideration the establishment of two more prospective institutions. Two reports have been compiled and submitted for review by the committee staff to supply the State Legislature with additional information relative to the development of our post-secondary system of institutions.

The requirements of the Vocational Amendments Act of 1968 has provided a tremendous boost in services for the disadvantaged and handicapped persons in North Carolina. For our operation, more flexibility in the utilization of these set-aside funds to serve both of these groups would be helpful. We are aware of the fact that rules and regulations are required, but guidelines established on the national level are not necessarily representative of the situations we are confronted by on the state level.

In our opinion, unnecessary constraints create problems in the administration of occupational education. For example, the rules and regulations governing vocational education written by staff members of the Bureau of Adult Vocational and Technical Education are primarily directed towards the administration of secondary education. There is very little recognition of a post-secondary system of vocational education which is involved with the recruitment of students, the requirement of tuition payment, and the development of programs to meet the needs of out-of-school youths and adults.

Lack of federal funding at the authorization level has meant that we are not able to provide services to additional numbers of people who could profit from occupational education. North Carolina has overmatched federal dollars for many years, but unless funds are available from other sources, we will not be able to meet the needs of the disadvantaged, handicapped, unemployed, and underemployed.

PRIMARY ACTIVITIES AND PROJECTS, 1968–1970

PART C. RESEARCH ACTIVITIES OF THE OCCUPATIONAL RESEARCH UNIT STATE DEPARTMENT OF PUBLIC INSTRUCTION

A major development in the recent history of North Carolina's Research Coordinating Unit was the transfer of this agency from North Carolina State University to the State Department of Public Instruction. At the time of the transfer the name of the RCU was changed to the Occupational Research Unit. As a result of the transfer the Occupational Research Unit was administratively located in the Division of Research within the Department of Public Instruction. Although this administrative arrangement prevails, the Minutes of the State Board of Education clearly indicate that the ORU should serve the Division of Occupational Education within the Department of Community Colleges as well as the Division of Occupational Education within the Department of Public Instruction.

The transfer of the Occupational Research Unit included staff changes. The former Director of the RCU became Executive Director of the State Advisory Council on Vocational Education and the former Assistant Director of the RCU became Director of the Division of Research. The employment of a completely new staff for the ORU began in November, 1969, with the employment of an Assistant Director. A statistical Analyst was added in November, 1969, a Director of the Unit in March, 1970, and the second Assistant Director in July, 1970. Interpretation of research and development activities conducted by the ORU during 1969 and 1970 should be viewed in the context of these organizational and staff changes.

The ORU is the group within the Division of Research which focuses upon the research needs in occupational education. Although the ORU is now located administratively in the State Department of Public Instruction, it was started at North Carolina State University as a USOE project to stimulate and coordinate research in occupational education. The ORU was founded in 1966 as one of a nationwide system of projects designed to help states develop a research capacity. Initially there were less than 20 projects funded, but now over 44 states maintain an ORU or its equivalent. One distinctive feature of the ORU (RCU) projects has been the ready acceptance of states, both philosophical and financial, to fully develop the ORU (RCU) projects into a research resource for the states.

Within the context of existing legislation and in accordance with the *North Carolina State Plan for Vocational Education*, the ORU provides services in several major areas. All of these services are directed toward the goals of stimulating and facilitating research in occupational education. The major services of the ORU are as follows:

(1) identifying research needs;
(2) developing research priorities;
(3) conducting and assisting with inservice education;
(4) reviewing and recommending projects for funding;
(5) consultation on research activities;
(6) coordination of research activities; and
(7) conducting selected research studies.

The purposes of the discussion which follows are to explore ORU services in terms of their contribution to the goals of stimulating and facilitating research, to examine the interdependence of these services and those of other groups within the State Department of Public Instruction (SDPI) and the Department of Community Colleges (DCC).

In *identifying the research needs* in the State, the ORU works closely with a planning council, the State Advisory Council for Vocational Education and other advisory groups. Inasmuch as the products of research can be profitably used as inputs for planning and curriculum development, the ORU has cultivated and maintains contacts with persons directly involved in these processes. Contacts include representatives of program services within the SDPI and DCC, representatives of local education agencies (LEA), as well as individuals and agencies functioning at the regional and national levels.

The *development of research priorities* has been identified as another major area of service. Pages 48–49 of the *State Plan* includes a list of 20 research areas as priority concerns for the years 1970–1975. Within these general areas the ORU will employ the following criteria in establishing research priorities: 1) potential for determining manpower needs and job opportunities, 2) potential for determining needs for vocational education, 3) adequacy of human and physical resources, 4) reasonableness of cost estimates, and 5) potential for utilizing results as an input for improving the teaching-learning process.

Another service area in which the ORU is involved is *inservice training* related to the generation, implementation, and interpretation of research. Stimulation and facilitation of research can be enhanced through developing among DCC, SDPI, and LEA personnel a knowledge of the potential and limitations of research in occupational education. Inservice education programs which encourage an understanding of basic concepts such as sampling, design, and variance would improve communications among ORU, DCC, SDPI, and LEA personnel who are concerned with maximum utilization of research as a component of the curriculum development process. Instructional programs, such as the workshops conducted to aid LEA personnel in developing proposals for occupational education in the middle grades, provide an example of cooperative efforts among several agencies (i.e., ORU, State Advisory Council, and Division of Occupational Education) to stimulate and facilitate research.

In establishing a framework for inservice training activities and in attempting to stimulate the use of innovations within occupational education, the ORU is concerned with dissemination of useful research data. A recent study of problems in educational administration identified the need for research personnel in state departments of education to serve as catalysts in the process of research utilization. By providing syntheses of research findings, which are stated so that LEA personnel can relate these findings to daily instructional activities the ORU can partially fulfill its role as catalyst. In addition to providing syntheses of research, the ORU assists persons in program services in using publications which are directly applicable to specific concerns in occupational education.

The *State Plan* and existing legislation require that ORU personnel serve in *reviewing and recommending projects* for funding. In order to increase the validity of judgments affecting the funding of projects, ORU personnel prefer to serve as cooperating members of teams selected to review and recommend projects. Teams comprised of representatives of several speciality areas (e.g., subject matter specialists, research personnel, budget specialists) should introduce more pertinent criteria into the review process than any speciality group given sole responsibility for reviewing and recommending projects.

Involvement in the plans for developing and soliciting of research proposals is an activity related to the major service described above. ORU personnel work closely with other SDPI and DCC personnel concerned with the planning and implementation of exemplary programs. Representatives of teacher education, the ORU, SDPI planning operations, and SDPI program services have coordinated their efforts to implement a program in occupational exploration in the middle grades. Representatives of all these groups also contributed to the development of this project.

Involvement in the development and solicitation of proposals logically relates to the major service area of *consulting* with LEA, DCC, and SDPI personnel on research and development activities. Many LEA's throughout the state have legitimate research needs which suffer due to inadequate local resources. The ORU has partially filled this need for resources and subsequently facilitated research activities by assuming a consultant's role with respect to LEA needs. Consulting may include provisions for any of the major services discussed above including specific activities such as assisting in developing research instruments and/or guiding proposals through the various steps and agencies required before funds are allocated. Studies which focus on the analysis of employers' needs and students' interests, such as those conducted in the technical institutes, are examples of the consulting role assumed by the ORU.

Effecting consulting services are dependent upon the availability, expertise, and interest of the consultants. Satisfaction of the first requirement can be met through scheduling which reflects the importance of unique research problems (e.g., recognition and understanding of different employment patterns in geographical areas which suggest the need for individual meetings), but which allows group meetings on common problems when feasible. ORU personnel have increased their availability by serving on committees affecting occupational education within the elementary, secondary, and post-secondary systems. The criterion of expertise among ORU staff members has been met through careful staffing procedures, increasing levels of compensation in proportion to competencies desired, participation in conferences, workshops, graduate courses, and other forms of inservice education. Expertise has also been developed through the experiences afforded ORU personnel in their attempts to meet the criterion of availability. The interests of ORU personnel in the projects with which they work has been partially assured through perceptive coordination of responsibilities by the ORU director. Open discussions which encourage ORU personnel to express and pursue areas of special interests have broadened the perspectives of ORU personnel, as well as increased their appreciation of research problems which previously elicited neutral responses.

The last major area of service for the ORU identified earlier was *coordination* of research activities. The coordination role of the ORU is mandated by the belief that concerned efforts and additive research increase the efficiency and effectiveness of research in occupational education. As a coordinating agency the ORU has related research plans to stated priorities, served as catalyst for special interest groups, facilitated the integration of both procedures and findings of specific studies, and linked research interests in North Carolina to regional and national developments in occupational education. The benefits of having an agency concerned with coordinating research are evident in the planning and implementation of manpower studies within the community colleges system and in the conducting of follow-up studies of occupational education graduates. The development of general instruments which can be efficiently adapted for specific needs is an example of the valuable role of a coordinating agency.

Obviously, the contributions of these six major services in stimulating and facilitating research varies. An important point in concluding a discussion of services is the interdependence of what appear to be unique experiences (e.g., a private conference on research related to a program existing in only one school) and experiences falling elsewhere along a commonality continuum. A similar analogy could be stated which emphasizes the interrelatedness, rather than uniqueness of any of the service areas discussed thus far. Succinctly, ORU personnel view all activities within major areas of service and all major areas of service as components of the general process of improving occupational education through research.

Primary activities or Projects of the Occupational Research Unit since 1968 are listed below:

1. Assistance in conducting in-service education workshops in proposal development for occupational education.
2. Assistance to several technical institutes in conducting studies of local educational interests in manpower needs.
3. Primary responsibility for the implementation of the state-wide evaluation of 43 special projects concerned with Occupational Exploration in the Middle Grades.
4. Renewal of a state-wide Follow-up Study of graduates of high school occupational programs.
5. Serving on review teams to evaluate proposals submitted by local education agencies (secondary and post-secondary agencies).
6. Involvement in the review of evaluation reports from technical institute and community colleges for special workshops on articulation in occupational education between secondary and post-secondary institutions.
7. Assistance to the Department of Community Colleges in conducting a study of disadvantaged people's perception of technical institutes and community colleges.
8. Assistance to a technical institute in developing a study for determining a profile of graduates from various occupational programs.
9. Evaluation of conferences for occupational teachers.
10. ORU staff members have also been involved in State, regional, and national meetings concerned with occupational education.
11. Assistance in proposal development and evaluation of Exemplary Projects.
12. National-Belmont-Task Force on User's Guides.
13. Administration of Fiscal Year '72 Part C Research funds.
14. Assistance in development of a computerized State-wide program reporting system.
15. Assistance in proposal development and evaluation of Handicapped Projects.
16. Consulted with County Board of Education officials on ideas for developing proposal for program for students with special needs.
17. Development and evaluation of achievement measures for project entitled, "An Evaluation of the Experimental Vocational Curriculum in Independence High School".

18. Assisted personnel in State Division of Occupational Education and Department of Community Colleges in developing proposal for mobile unit on occupational education.

19. Assisted a technical institute and the Department of Community Colleges in developing of a proposal for a project in the area of Allied Health Occupations.

20. Assisted Dr. Bert Westbrook, Center for Occupational Education, on project entitled, "The Construction and Validation of a Measure of Vocational Maturity".

21. Consultation with graduate students at both the masters and doctoral level on the development of research proposals.

22. Provided leadership in working with the Community College Advisory Council toward the development of standards and criteria for evaluating post-high school institutions in the Community College System.

23. Provided leadership on State-wide evaluation of high school vocational education programs.

24. Lectured numerous graduate classes in Research Methods at surrounding universities.

25. Consulted with Pre-Vocational Education Advisory Group of Georgia Department of Education.

26. Attended and participated in quarterly meetings of Association of Occupational Directors.

27. Participated in State evaluation of Technical Institutes.

28. Conducted workshop on "Utilizing the UNCSTAT Procedures" for teacher educators and others on the campus of N.C. State University.

29. Worked with committees for the Governor's Commission on the Study of Public Schools.

30. Assisted Department of Agricultural Education in developing a proposal to analyze turfgrass occupations in terms of the work, the opportunities for employment, and the opportunities for supervised practice experiences.

31. Assisted personnel in Center for Occupational Education with evaluation of project in Brevard County, Florida, entitled, "An Experimental Design for a Multi-Cultural Nongraded Area Vocational High School Associated with a Community College".

32. Consulted with officials and staffs at technical institutes on self-study report.

33. Retrieved source data and prepared bibliographies for institutions and individuals engaged in government sponsored educational research.

34. Two staff members attended "PERT Workshop" sponsored by Center for Occupational Education.

35. Attended and made presentation at North Carolina Vocational Association Conventions.

36. Attended national conference on "Dissemination of Educational Ideas" at Michigan State University.

37. Participated in workshop for community college personnel.

38. Collected North Carolina data for a study entitled, "A Study of Post-Secondary Occupational Education in the South." The study was made by the Southwide Research Coordinating Council in co-

operation with the Center for Occupational Education. This study was submitted (along with other documents) as evidence of need for the establishment of regional accreditation procedures for post-secondary occupational education programs. The Southern Association of Schools and Colleges has subsequently taken favorable and positive action in this direction.

39. Participated as a member of a national ad hoc committee of State Research Coordinating Unit directors working on, "Guidelines for a State Vocational-Technical Education Information System Coordinated with the National System," in cooperation with the Center for Vocational-Technical Education, The Ohio State University.

40. Assistance was given to the Research Committee, North Carolina Vocational Association, in a study of its membership.

41. Assisted Home Economics Education Section, State Department of Public Instruction, on their follow-up study of tenth grade girls enrolled in North Carolina Public Schools in 1957–58.

42. Assisted a technical institute on the development of a research proposal in Veterinary Medical Technology.

43. Evaluation of the Introduction to Vocations program in the North Carolina Public Schools.

44. Assisted in the implementation of the standards project which the State Board of Education adopted for Community College institutions in the State.

45. Worked with the National Center for Educational Statistics on a study entitled, "Survey of Characteristics of Vocational Education Teachers and Students".

The following appendices illustrate the output of the Occupational Research Unit as related to publications.

THE STATE ADVISORY COUNCIL ON VOCATIONAL EDUCATION

The North Carolina State Advisory Council on Vocational Education has become a very vital force for occupational education in our State. The Council has 37 members appointed by Governor Robert W. Scott. It has employed an Executive Director and a Secretary to serve as its staff. The staff is housed on the campus of North Carolina State University. Its budget is administered through the Controller of the State Board of Education.

The Council has served a real advisory function to the State Board of Education and its staff. It has provided us input and expertise from a broad spectrum of the citizens of our State. The Council has made major contributions to the development of the State Plan. They have provided a stimulus for program direction. The Council provides a forum for the discussion of ideas and problems by Council members, by the State Board staff and by the general public.

The North Carolina Council has given strong support to occupational education. It has spoken out strongly but positively in such areas as program support, professional development, availability of comprehensive programs, and accountability. Its evaluations have been appropriate and fair. We have moved toward implementation of their recommendations as rapidly as possible.

Members of the Council have given generously of their time and talents to assist with occupational education activities. Its Executive

Director serves continuously on planning committees and task forces of the State Board and its staff.

The North Carolina Council has developed as an independent agency as required by the Vocational Education Amendments of 1968 and the Federal Rules and Regulations. But, in reality, the relationship of the Council and its staff to the State Board of Education and its staffs has been one of interdependency. This is as it should be.

I strongly urge the continuation of and financial support for State Advisory Councils.

NORTH DAKOTA

State Director—Carrol E. Burchinal

Statement of Carrol E. Burchinal, State Director, State Board for Vocational Education

The North Dakota State Board for Vocational Education is honored to provide a statement concerning Vocational Education in this State as administered within the provisions of the Vocational Education Amendments of 1968. We are pleased to present the activities conducted as a result of this legislation.

The following statements of progress and information relate to the specific areas of research, post-secondary education, education for the handicapped, methods of intra-state distribution of funds, and contributions of the State Advisory Council.

RESEARCH

In addition to funding several research projects related to innovations in vocational curriculum; comprehensive cooperative program of follow-up placement, and job development services; identification of educational accountability through a planned, budgeting, evaluation system, considerable effort has been made in conducting a manpower needs survey of the State to determine our labor needs. Completion of this study will provide much needed data for effectively planning vocational training programs. This study is being done in cooperation with the Employment Security Bureau.

POST-SECONDARY EDUCATION

Considerable progress has been made in expanding existing programs and developing new vocational offerings on the post-secondary level.

The following table indicates the growth in the number of programs and students served:

	1968		1970	
	Number of schools	Enrollment	Number of schools	Enrollment
Agriculture			2	34
Distributive education	2	41	3	123
Health	4	501	5	592
Home economics			6	827
Office education	3	566		
Trade and industrial	2	876	5	2,119

Most of the growth as indicated above was due primarily to increased local and State funds. The 1969 North Dakota Legislature appropriated $500,000 specifically for new and expanded vocational-technical programs for the post-secondary schools.

EDUCATION FOR THE HANDICAPPED

Approximately 285 handicapped persons were served at the secondary level during fiscal year 1970. The number served increased during 1971. The following table indicates the activities conducted to serve handicapped persons during 1971:

Type of facility	Levels served	Handicap	Occupations
State institution	Secondary	Deaf	Printing, office education, home economics.
Local school district	do	EMR	Diversified work, experience programs.
Statewide project	Postsecondary adults.	EMR	Evaluation workshop, diversified work, experience programs.

EDUCATION FOR THE DISADVANTAGED

Training programs for the disadvantaged persons have increased. Four new programs are being offered on or near Indian reservations. However, our disadvantaged persons are being served largely through regular vocational programs with added services. Local school districts identifying disadvantaged students are providing time within their schedules to serve those students who are in need of special services in order to succeed in regular vocational classes. Most schools are not separating the disadvantaged students from the regular classroom, but are serving them on an individual basis during a specified period designed to provide assistance to those experiencing difficulty in the regular vocational program. The State Board is providing many school districts with disadvantaged funds for instructional salaries and other costs related to instruction for the fraction of the instructor's time devoted to serving the disadvantaged.

The State Board has contracted with a post-secondary facility to provide exploratory experiences in vocational education for disadvantaged secondary students who have no access to vocational education in their respective local schools. Approximately 200 students are being served during two five-week summer sessions.

A three-year experimental project is currently in operation, funded by the fifteen percent portion of Part B funds. This program provides the following services:

1. Model occupational training for the disadvantaged.
2. Elementary and secondary students with career opportunities.
3. Occupational counseling.
4. Improving of vocational curricula.
5. Recruitment of vocational education instructors for the disadvantaged.
6. An exchange of personnel between schools and other organizations.
7. Cooperative work experience for students.

METHODS OF INTRA-STATE DISTRIBUTION OF FUNDS

As a result of the Vocational Education Amendments of 1968, vocational funds are now distributed to local school districts and institutions on an approved formula basis. The rate of reimbursement to local secondary schools for regular vocational programs ranges from 40 to

60 percent, with an average of approximately 45 percent. The Consumer and Homemaking program reimbursement is only 12 to 14 percent, due to limited State and Federal funds. Reimbursement for locally controlled post-secondary schools will range from 50 to 53 percent, according to an established formula.

CONTRIBUTIONS OF STATE ADVISORY COUNCIL

The State Advisory Council has provided adequate contributions to the administration of vocational education. The State Board has considered the recommendations contained in the council's annual evaluation report and implemented a majority of the recommendations. It is felt that the Council could have performed more effectively had there been a more defined guideline or other form of direction provided related to its responsibility. The Council has been most cooperative with this office and has provided valuable assistance on several occasions. The Council used its own financial resources to develop a series of one-minute films on vocational education to be shown as public service announcements by each television station in North Dakota.

INNOVATIVE IDEAS ON CAREER EDUCATION

As a result of Part D (Exemplary Section) of the 1968 Vocational Education Amendments, North Dakota is in the second year of a three-year project designed to develop a Career Education Model K–12. The program at the elementary level calls for the integration of activity centered experiences into the existing curriculum. The grades 7–9 phase provides for broad based occupational exploration, including classroom, laboratory and field experiences in a variety of occupational areas. At the secondary level (grades 10–12) the career development program becomes more specific. In addition to increasing knowledge about occupations and work settings, students receive experiences in job seeking, file applications and interviews, understanding of employer-employee relations; and a clarification of the decision-making process as related to ones self.

In view of past experiences related to the administration of the 1968 Vocational Education Amendments, the following statements, concerns, and recommendations are submitted for your consideration.

Positive Features of Vocational Education Amendments of 1968

1. As a result of the 1968 Vocational Education Amendments, a much broader vocational education offering has been implemented.

2. Federal appropriations have stimulated or generated more State and local funds to be spent for vocational education.

3. Greater flexibility in utilizing 100% Federal support for schools who otherwise would have been unable to provide vocational education has been provided.

4. Change to Statewide matching requirements by source of funds and elimination of matching requirements by levels has been beneficial to the State.

5. Better planning is being accomplished at the local level.

Rural states are facing problems in implementing the special provisions of the Vocational Education Amendments of 1968.

1. The 15 percent set-aside for the disadvantaged creates a hardship because the regular vocational program support had to be reduced from 50 percent to approximately 45 percent due to the set-aside.

2. Each state should be authorized through the State Plan for Vocational Education to determine the portion of Part B Grants to States, based upon the State's priority—not upon a nationally established priority of 15 percent for the disadvantaged and the 10 percent for the handicapped. Because our State is small and sparsely populated (average high school enrollment is 90 students in grades 9–12), we have been forced to reduce the support provided to schools for the operation of regular vocational programs even though our State Legislature has doubled its appropriations by increasing the State funds from $995,803 to $1,828,000. Without this increase the situation locally could have been most critical and thereby seriously effecting vocational education programs in North Dakota. Although we are receiving more Federal funds overall, the support to our schools for their regular programs has been reduced due to the Part B—Grants to States set-asides.

3. Deviation in percentage of matching requirements for the various parts of the Vocational Education Amendments of 1968 creates problems for the local educational agencies. For example, Part C (Research) may be supported up to 75 percent for the operations of the Research Coordinating Units, whereas research grants for local projects may be supported up to 90 percent. Part H (Work-Study) may be supported up to 80 percent and Part F (Consumer and Homemaking) up to 90 percent in depressed areas. Confusion could be eliminated if no reference were made of percentage requirements, allowing states to determine their own matching requirements since the majority of the financial support for vocational education still comes from State and local resources.

4. Definition or criteria for identifying the disadvantaged vary from one Federal program to another. Local education agencies are finding it difficult to cope with this problem and in many cases resist identifying the disadvantaged because of the local philosophy. Local school administrators and personnel feel that they hopefully are charged with providing and meeting the needs of all students regardless of race, creed, minority, low income, mental retards identification.

5. The cooperative work experience programs are vital and most practical. If the proposed minimum wage of $2.00 becomes a reality, the cooperative vocational education programs will be jeopardized. We do not oppose the $2.00 per hour minimum wage, but we do feel that there must be more flexibility in allowing employers to train our cooperative students without placing additional financial burden on the employer.

6. Advanced funding is absolutely essential if the states and local educational agencies are to effectively plan vocational education programs.

7. There must be stronger leadership at the National level to eliminate a systems of priorities between the elementary, secondary, higher education, and the Department of Labor.

Career Development

NORTH DAKOTA EXEMPLARY PROGRAM

The North Dakota Exemplary Project in Career Development grew out of the Vocational Education Amendments of 1968. Included in the 1968 Amendments was a section entitled "Exemplary." It was the purpose of this section to stimulate new ways of bridging the gap between school and work.

Federal funding for the Exemplary Career Development Program became available through a proposal initiated by the North Dakota State Board for Vocational Education. The project is scheduled to have the career development model completed and disseminated-statewide by June 30, 1973.

WHAT DO WE MEAN "CAREER DEVELOPMENT"

Career development is self development. It is the process of helping an individual to understand accurately both himself and the world of work, the specific educational and job requirements of occupations, entry and progress in education pursuits and ultimately the choice of a vocation.

This ongoing process of career development is based on the assumption that an individual actually reaches his ultimate career decision, not at any single moment in time, but through a series of experiences and resultant decisions over a period of years. Career development is sequential, building on vocational development tasks at each level, and is implemented throughout the curriculum.

Career development is every teacher's responsibility. Every teacher must teach for transfer of their subject into the world of work. Teachers cannot assume that the students will make the relevant interpretation on their own.

The career development program is one of orientation and information at the elementary level; information, self evaluation and exploration at the junior high level; and exploration and preparation at the senior high level.

CAREER DEVELOPMENT GRADES K–6

The program at the elementary level calls for the integration of activity centered experiences into the existing curriculum. These activities provide meaningful experiences which aid in the development of positive self concepts, appreciation of all vocations, understanding of workers, positive attitude toward work and the concept that all work has dignity.

At the elementary level, there is neither intent nor desire to channel students into any occupational decision; rather, to build a base of experience and exposure upon which the student can most effectively make decisions relating to his next step in the life-education continuum.

GRADES 7–9

This phase of the program provides for broad based occupational exploration including classroom, shop, laboratory and field experiences in a variety of occupational areas.

It is designed to assist junior high students, through an interdisciplinary approach, develop a more realistic plan for their own careers. The activities provide for further development of self concept, self appraisal of abilities, interests and aptitudes; understanding of education avenues; appreciation of economic and social values of work and an awareness of the decision-making process.

Many of the activities provide an opportunity for the students to visit the business community and observe workers on the job at all levels, including semi-skilled, skilled, technical and professional occupations. Students will interview workers to learn their respective feelings about their occupation, the educational requirements, work settings, benefits, work hours, and job characteristics relative to self-characteristics.

GRADES 10–12

At the secondary level, the career development program becomes more specific. In addition to increasing knowledge about occupations and work settings, students receive experiences in job seeking, job application and job interviews; understanding of employer-employee relationships; and a clarification of the decision-making process as relates to self.

Activities that help relate subject matter content to actual work situations will be integrated into the various disciplines. Students will continue to develop an understanding of self and an awareness of their preferred life style. Assistance is provided in selection of appropriate course work and actual "work" experiences are provided through cooperative vocational education programs.

Special attention will be given to the guidance function at the secondary level in assisting and implementing the student's vocational preference whether it be entering work after high school or continuing his education.

CAREER DEVELOPMENT "DEMONSTRATION SITE"

The Bismarck School District No. 1 has been designated as the "demonstration site" for the career development program K–12. The district has eleven elementary schools with an enrollment of 4,387 students and 179 teachers; three junior high schools with enrollments of 2,050 and 113 teachers and one senior high school with enrollment of 1,710 and 85 teachers.

The career development activities (K–12) will be developed, field tested, and brought into operation at this single operational setting. The project is dedicated to the belief that if the end product is to be used by teachers they must be involved in its development.

The activities developed will be applicable to all school sizes and settings whether it be the traditional classroom approach or the individualized approach.

SPECIAL CAREER DEVELOPMENT PROJECTS

The Career Development Program (K–12) will be supplemented with experimental projects in career exploration and intensive training during the summer.

Exploring the "World of Work"

The Exemplary Project is contracting with post-secondary vocational schools to provide opportunities for students from throughout the state to investigate clusters of occupations.

The program is designed for juniors and seniors in high school who are having difficulty in making a career decision, difficulty selecting meaningful course work, and difficulty in analyzing themselves—their interests, present abilities, and aspirations. Students spend one week in "hands on" activities in each of five broad occupational areas which encompass many different jobs.

In addition to the experiences in the shops and laboratories, students are involved in visits to industry, group guidance activities, recreational events and social interaction during their stay on the campus.

Intensive vocational training

The project is contracting with area vocational-technical schools in offering, during the summer, intensive vocational training in selected occupations for students who have finished high school or dropouts who have not had access to vocational education and do not have the opportunity for advanced training.

The programs are designed to provide job entry skill in such occupational areas as bank teller, key punch operation, production typist, service station attendant, cashier checker, and nurses aide. The programs vary from five to ten weeks in duration.

VOCATIONAL GUIDANCE AND COUNSELING

Guidance and Counseling is a vital function at every grade level in the career development program with special emphasis at the secondary level to provide every student with information about occupational choices as well as educational avenues.

The exemplary project will provide in cooperation with the Vocational Guidance Office, vocational counseling services to all schools, to assist counselors in developing a vocational counseling program and to provide actual vocational counseling services to schools that do not have a guidance program. In addition, assistance will be provided schools in selecting occupational information for their libraries.

PARENTS AND CAREER DEVELOPMENT

The exemplary project recognizes the important role that parents perform in the career development process of their child. Parents instill attitudes about work by the things they say and do regarding their own job. They provide opportunities for exposure to work and help children make a choice according to his interests and aptitudes. Children need someone to consult with about their life style. Parents are their first source.

Parents, as workers, provide excellent resource people for classroom discussion on the world of work. The exemplary project calls for parent involvement throughout the career development process.

AGENCIES INVOLVED IN EXEMPLARY PROGRAM

The Career Development Program is being developed in consultation and cooperation with the Department of Public Instruction, North Dakota School Administrators Association, Secondary School Principals Association, Department of Elementary Principals, North Dakota Personnel and Guidance Association, North Dakota Association of Classroom Teachers, North Dakota Employment Security Bureau and Industry and Labor.

EXPECTED OUTCOMES

Successful completion of the Exemplary Career Development program will accomplish:

An increased student awareness of self and occupational option.

A vocationally integrated curriculum K–12.

An increased knowledge of the world of work through systematic exposures to workers and work settings.

A reduction in high school and college dropout rates.

A positive attitude toward work and preparation for work.

An increase in job placement and job satisfaction.

A more relevant education curriculum K–12 by bridging the school and community.

An integration of educational efforts of all teachers around a common goal.

An improved State Vocational Guidance program.

An improved working relationship of all state agencies and organizations having a similar purpose.

EXEMPLARY PROJECT PHILOSOPHY

The North Dakota Exemplary Project philosophy can best be summed up in the following quotation by Dr. Kenneth Hoyt.

"We don't consider it nearly so important what people choose as we do that they choose from the widest range of opportunities.

We aren't as concerned about what the young person decides about his opportunities as we are what he decides about himself in relation to these opportunities. We don't want to make people do things—we want to let them find ways of doing things. We aren't as interested in the something they become as the someone they become."

OHIO

State Director—Byrl R. Shoemaker

PROGRESS IN VOCATIONAL EDUCATION UNDER THE VOCATIONAL EDUCATION AMENDMENTS OF 1968—STATE OF OHIO

(Byrl R. Shoemaker, Director of Vocational Education, Columbus, Ohio)

Mr. Pucinski, Members of the General Subcommittee on Education, I am pleased to have the opportunity to report to you on our progress in Ohio to serve people through vocational education. Your plan to hold oversight hearings on Vocational Education Amendments of 1968, and the opportunity that you have granted us to make reports to you on our progress are of great importance to the future of vocational education and the future of our nation. The nation is grasping for solutions to social and economic problems. Too often those in position to plan or to approve plans are reaching for quick and popular efforts to solve these problems when such problems must be approached on the basis of long-term planning. Lasting solutions to the social and economic problems facing our nation can be achieved only through massive efforts at prevention rather than the expenditure of billions of dollars for treatment after the problems are with us as adults.

The Federal-state-local system of vocational education in this nation is providing service to over eight million youth and adults during this current year. In the State of Ohio we provided service to 328,373 youth and adults in FY 1970, the last year for which full information is available. There is no other delivery system in the nation which is presently delivering this amount of vocational and technical training to youth and adults or capable of delivering the amount of services that will be needed. The support for vocational education at the state and local level as a viable delivery system of services to youth and adults is indicated by the fact that the individual states match the Federal funds provided for vocational education on the basis of four to five state and local dollars to each federal dollar invested. There is no other manpower delivery system which can approach this record.

It should be clearly understood that vocational education *is* a manpower delivery system, with emphasis upon the services to people. There is no question but that the Vocational Education Act of 1963 and the succeeding Vocational Education Amendments of 1968 gave significantly new directions to the vocational education program in the nation. The results, or effects, of these two Acts are now clearly illustrated in the programs of vocational education throughout this nation.

Until the passage of the Vocational Act of 1963, the emphasis in the Federal Vocational Education Acts was upon the preparation of skilled personnel to meet the needs of business and industry within our technological society. Under the Vocational Education Act of 1963, and the subsequent amendments in 1968, the role of vocational education to prepare skilled workers for business and industry was retained, but additional responsibilities were assigned. Such responsibilities placed emphasis upon the social and economic responsibilities of vocational education to all ability levels of youth and adults, to the inner-city problems of our major cities, to the growth of services to a significant portion of the population, to the handicapped and disadvantaged, and to the home and family living and the child care problems of the disadvantaged homes in our major cities.

A totally new role assigned under the Vocational Education Amendments of 1968 was the pre-vocational role of leading students to a point of occupational choice. In Ohio we have interpreted this role to be career motivation in the elementary school, career orientation at the seventh and eighth grade levels and career exploration at grades nine and ten. Such programs provide preparation for choice of a pre-professional or a vocational program at age 16 or the eleventh grade, leading to employment or further education of a vocational, technical or professional level beyond high school.

The public school system offers the only economical base for significant investments of Federal funds in solutions to our social and economic problems. We cannot afford another schools system. There is no other institutional organization that touches the lives of essentially all of our youth during their most important years of development. Federal funds for vocational education on a categorical basis have encouraged the public education system to invest in vocational education. The investment in vocational education was an investment in change of the existing educational system.

The present investments in vocational education at the Federal level, however, are insignificant in terms of the goals established in the Vocational Education Amendments of 1968, the social and economic needs of our nation, and the possibilities for the use of the Federal-state-local relationship in vocational education for investments in change. Change can be achieved by investments in vocational programs directed towards home and family life, career motivation, orientation and exploration; and vocational and technical education as a preparation for work and as a continual resource for retraining and upgrading.

A. PROGRESS IN VOCATIONAL EDUCATION IN THE STATE OF OHIO

The growth and development of vocational education in Ohio is based largely upon stimulation provided by improvements in funding for vocational education at the Federal, state and local level. The Federal funds provided under the Vocational Education Acts of 1963 and Vocational Education Amendments of 1968 gave leadership and support to program development which enabled us to obtain greater support for the vocational-technical programs from the state and local levels. It is obvious, however, that the Federal funds for vocational education have not kept pace with either the assigned needs under the Vocational Education Amendments of 1968 or the growth of investments from the state and local levels. During this current fiscal year state appropriations for vocational education totalled $73,719,732.

Specific indications of the growth of services to youth and adults are as follows:

PROGRAM GROWTH AND DEVELOPMENT

During the decade of 1960–1970 there has been a significant growth in the number of youth and adults served by vocational education. The growth is as follows:

	1960	1962	1964	1966	1968	1970	1971
Youth	37, 215	43, 212	55, 199	71, 602	105, 941	135, 088	152, 418
Adults	83, 578	82, 981	115, 254	136, 593	159, 642	189, 647	[1] 218, 570

[1] Estimate.

During the same period there were major changes in vocational programs to provide greater services to disadvantaged and handicapped youth and adults through organized vocational programs. The growth of enrollment in programs planned for disadvantaged and handicapped youth are as follows:

	1960	1962	1964	1966	1968	1970	1971
High school	0	0	443	1, 150	5, 010	10, 681	14, 283
Out-of-school youth and adults	0	274	0	0	0	45, 381	35, 775

The growth of vocational education has been encouraged by the fact that greater numbers of students are remaining in school in an economy that demands a high school diploma as a minimum credential for enrollment. Comparative figures on percentage of youth starting first grade who complete high school are as follows:

	1955	1960	1965	1970
Percent completing high school	55. 3	67. 7	75. 5	80. 6

The first investments in construction and equipment for vocational education from the state level came under the allocations from the Vocational Education Act of 1963. The contribution to program development in vocational education brought about by this investment stimulated the state administration and the legislature to provide state funds for such additional facilities. The investments of state and Federal funds since the initial funds under the Vocational Education Act of 1963 are as follows:

[In dollars]

	1965	1966	1967	1968	1969	1970	1971
1. Federal funding under the Vocational Education Act of 1963 and amendments of 1968	4, 530, 389	6, 123, 838	7, 587, 707	7, 108, 971	6, 356, 149	4, 798, 750	7, 059, 531
2. State bond issue No. 1						16, 221, 593	52, 768, 734

The regulations of the Vocational Education Act of 1963 stimulated us to attempt to find means of improving nutrition, child care, and money management in the housing developments of our inner cities. The first pilot program of this type was initiated in Cleveland with Title F funds in 1967. With additional funds being made available under the Vocational Education Amendments of 1968 and further stimulation to provide services to inner-city families, the successful pilot program was expanded in the city of Cleveland and extended to over seven of our major cities. In addition, during this past year a pilot program has been initiated in two rural areas of our state under area vocational education centers to determine how best we could serve disadvantaged families outside of our major cities. These programs truly offer a basis for a broad expansion of services to families of the inner-city to improve the quality of home and family life and the chances of success of the youth in the homes in our public school system. The enrollments in this home and family living program since its inception are as follows:

1969	47,456
1970	57,783
1971	67,461

Since the passage of the Vocational Education Act of 1963, every effort has been made to develop new types of programming to enable young people to enter employment on the basis of success and not be thrust upon the world of work with the concept that they are failures. Agriculture, Business and Office, Distribution, Home Economics, and Trade and Industrial Education service in our state all have added many new programs to enable the less able students or the discouraged students to find their way into employment. One program, occupational work experience, planned specifically for youth age 16 and up at whatever grade level they might be, was established on the basis of a co-op program. Any student who wanted to enroll in vocational education could be accepted into this program and placed on a half-day schedule in an honest job in which he could earn money and gain skills and which enabled him to be a part of the school program during the other half day. Two periods of that half day in school are spent with the occupational work experience coordinator. During this time the instructor provides work adjustment, economic and job improvement information, and limited technical instruction. The growth of enrollment in this program is as follows:

	1963	1965	1967	1969	1971
Enrollments in occupational work experience programs	40	390	1,730	4,840	8,570

Representatives from major cities indicated that there were many youth who were dropout-prone at age 14 and 15 and would not be in school at age 16 to be enrolled in vocational education. Studies in guidance, however, would indicate that youth at age 14 and 15 are socially and psychologically immature as far as making a vocational choice. According to studies in guidance, age 16 is a logical age for an occupational choice as a basis for preparation towards that occupational choice. Instead of a vocational training program for the 14 and 15-year olds, an occupational work adjustment program has been instituted since the passage of the Vocational Education Amendments of 1960 which uses work as an adjustment process. Every effort is made to prove to the young person through a work adjustment experience, in which he is paid money for real work, that he can be successful and to encourage him to make a choice of vocational or pre-professional training as he reaches age 16. This program is only two years old, but the growth in units and enrollment is indicated below, with a projection for next year:

	1970	1971	Projected 1972
OWA classes	39	116	199
OWA enrollment	790	2,367	3,378

Experiences with girls in the inner-city sections of our major cities have revealed many over-age and grade girls at grades seven and eight. Many of the girls have moved into the big city from rural areas and find the adjustment difficult. The regular home economics program seemed to have little relationship to these girls, both in terms of skills provided, and, in encouragement and assistance to adapt to an urban society. The first program to serve this type of girls was initiated in Cleveland, Ohio in 1969. It was identified as an "impact home economics program" for disadvantaged girls at the grade levels identified above, and a special effort was made to relate the in-school program to the mothers of the girls enrolled. In this case, efforts were made to bring the mothers into the school for co-curricular activities with the student and the teacher in addition to visits to the home. The success of this program during its first year in terms of student changes in attitudes and teacher evaluation of its success has led us to make this program available to all of the major cities and to initiate during this year the service of a mobile unit in Cleveland, Ohio. The plan is to take a mobile home improvement laboratory into the neighborhoods served by the impact programs. The enrollments in this very new program for disadvantaged are as follows:

	1970	1971
Classes	20	30
Enrollment	496	746

The funding under the Exemplary Section of the Vocational Education Amendments of 1968 and the new regulations encouraging vocational education to move into pre-vocational programming, down to the kindergarten level, gave us our first opportunity to invest in this type of program. A plan was developed, based upon the concept of placing the responsibility for vocational guidance within the curriculum, rather than as an appendage to the curriculum. On this basis we have developed, and are field testing, a model of career development, based upon the concept of career motivation in Grades K through 6, career orientation in Grades 7 and 8 and career exploration in Grades 9 and 10. The career orientation program was initiated during the FY 1970 school year and the success of this program led us to expand that program during this fiscal year and to initiate pilot programs of career motivation in Grades K–6 and career exploration in Grades 9–10. There is every indication that these two ventures are a success.

	1970	1971
Career motivation (K-6):		
Number of schools	0	16
Enrollments	0	11,317
Career orientation:		
Number of schools	16	26
Enrollments	6,000	7,600
Career exploration:		
Number of schools	0	5
Enrollments	0	4,860

Under the area of research we have moved to place our information system on data processing for the purposes of efficiency in data retrieval and reporting. Massive improvements have been made in our data gathering and reporting systems for both ease of administration and accuracy of reporting. This service has been established by the RCU unit located in our department office in order that it can be of service to the total vocational program in Ohio. The availability this year of Federal funds under the research grants and exemplary program funds, Part C, enabled our Division to identify research needs.

Total 22 cities have Career Gr. K–10 programs reimbursed for________ $621, 549

In addition, our Research Coordinating Unit has initiated the development of an evaluation system of program review for improvement, development and expansion of vocational education, identified as "PRIDE." This evaluation technique, involving self-study by the local educational programs before program review by a team from our Division of Vocational Education, was field tested during this past year in eleven of our vocational education planning districts. The concept has been to look at the quality and quantity of vocational education services for youth and adults on the basis of a vocational planning area which may cover one or more counties, rather than limiting the review to an individual district which may or may not have the student base and tax base to provide for an adequate program. The pattern has now been established to conduct a program review in all the vocational planning districts in the state of Ohio on a five-year rotation.

This program review includes a questionnaire to students and to parents. During the study of the eleven vocational planning districts this fiscal year, a total of 23,000 parents returned questionnaires which were then tabulated by means of data processing, along with the questionnaires from 29,000 students. The results of this program review procedure indicate that it is an excellent method for program improvement, development and expansion. The responses from the parents and students, even in those districts which do not now have vocational education, indicate a strong desire for an expansion of vocational education programming. A summary of the student and parent survey is available upon request.

The Division of Vocational Education in the state of Ohio has attempted to improve the process of program management within our division, with the assistance of funds under the EPDA grant. Under this management development program, we have moved to a program planning and budgeting base by establishing the basic assumptions underlying program development and quantified objectives based upon vocational and technical services to be provided for youth and adults. These quantified objectives listed below were then translated into a funding pattern based upon the number of years projected to reach the goal. Quantified objectives as a basis for planning for objectives are as follows:

1. To provide a preparatory job training vocational education program for 166,958, or 40% of the 417,395 students at the 11th and 12th grade level or 16 years of age and above, including:

   46,957, or 75% of the 62,609 disadvantaged school youth who comprise 15% of all youth at the 11th and 12th grade level or

16 years of age and above who have academic socio-economic, or other handicaps that prevent them from succeeding in a regular vocational education program, and

20,869, or 50% of the 41,739 handicapped school youth who comprise 10% of all youth at the 11th and 12th grade level or 16 years of age and above, who, because of their handicap, cannot succeed in a regular vocational education program.

2. To provide a dropout prone youth occupational work adjustment program for 79,778, or 100% of the 79,778 dropout prone students, which comprises 20% of all youth at the 9th and 10th grade level or below the age of 16 years.

3. To provide retraining and upgrading vocational education programs for 414,222, or 10% of the 4,142,229 adult workers.

4. To provide a vocational home economics consumer and homemaking education program for 90,103 or 25% of 360,412 girls at the 9th thru 12th grade level and 20,510, or 24% of the 85,457 adult women in a one year age span which will prepare them for the role of homemaker in their dual role of homemaker and wage earner.

5. To provide a career orientation program for 270,484, or 75% of the 360,645 students at the 7th and 8th grade level of 12 and 13 years of age to build a basis for a career exploration program realistic in light of all the circumstances surrounding them and the actual and potential labor market demands for gainful employment.

6. To provide a career exploration program for 299,170, or 75% of the 398,894 students at the 9th and 10th grade level or 14 and 15 years of age.

7. To provide by 1975 a work orientation program for 900,609, or 75% of the 1,200,812 students, at the K–6 grade level which will encourage constructive work attitudes in all youth.

8. To provide a post-secondary program for 27,411, or 3.2% of the 856,656 persons 18 to 22 years of age.

9. To provide a vocational home economics consumer and homemaking education and family life program for 7,893 or 50% of the 15,786 dropout-prone girls at the 7th and 8th grade level which comprises 13.2% of the girls at the 7th and 8th grade level and 95,498, or approximately 50% of the 190,995 adult women in a three year age span, living in the culturally and socially depressed areas.

10. To provide a vocational work study program for 50,087, or 30% of the 166,958 vocational students basically in the 11th and 12th grade vocational program, who are 15 thru 21 years of age, and who are in need of earnings from employment to pursue a vocational education program.

11. To provide four residential vocational schools for 2,000 youth 16 to 21 years of age who can profit from this type of an instructional program.

A copy of a manual identifying basic assumptions, factors of cost effectiveness, quantified objectives and projected funding is available upon request.

In addition to planning by objectives, we have moved to a total planning program in the state, based upon standards established by the State Board of Education as a result of legislation under our state legislature. This has made possible the organization of 631 school districts into 104 planning districts for the development of comprehensive programs of vocational education to serve the needs of youth and adults. Additional funds will be needed for construction, equipment and operation in order to implement the programs planned by these 104 districts.

The planning has continued into our occupational service units as agriculture, business and office, distribution, homemaking job training, and trade and industrial education in order to relate gross needs in the manpower field to enrollments by occupational programs in vocational education planning districts. This process should be finished within the next several months.

In addition, our management procedures have undergone change in terms of the concept of the role of our Division of Vocational Education in relationship to the local communities. Such changes have involved a continuous training program for local directors for the past four years which will now be converted into a program for training of local supervisors by the broad occupational areas of agriculture, business, etc. I believe that we are organizing to meet the needs of people for training and to provide training to people on the basis of occupations related to the work needs of business and industry.

During this fiscal year Presidential Assistant John D. Ehrlichman raised a series of questions relative to the vocational education program of our nation. His questions, and my response to his questions from the vocational education program experiences in Ohio are as **follows:**

Q. 1—"What are the strengths and weaknesses of current vocational education programs? To what extent do the weaknesses reflect administrative shortcomings rather than unsatisfactory legislation?"

A. Strengths

(1) The vocational education program in the state of Ohio is the most massive delivery system for training and retraining available for services to the people of Ohio. The public vocational education program is the only program that can serve youth, starting with a prevocational, or career motivation program in kindergarten through Grade 10, and provide preparatory vocational education, apprenticeship training, upgrading and retraining services to youth and adults throughout their work life.

(2) The vocational education program in the state of Ohio has organized into a system concerned with:

a. changing the value systems and consumer practices in the homes of the disadvantaged people in the inner-city sections of our major cities.

b. development of a career motivation program in kindergarten through Grade 6, career orientation program, Grades 7 and 8 and career exploration program, Grades 9 and 10 to enable the students to make reasonable choices concerning their future occupation at age 16.

c. the development of programs for dropout-prone youth at ages 14 and 15, based on the concept of using work as an adjustment procedure to lead the young person to an improved choice of his educational program when he reaches age 16.

d. the development of a broad program of vocational education for youth at age 16 and up to provide them with the skills and technical education essential for entrance into and progress in occupations.

e. the development of organizational patterns within the field of education in order to bring together the student base and tax base essential to develop the scope of program needed to meet the needs of students at all ability levels and a broad range of interests.

f. expansion of two-year post-high school technical programs designed to prepare persons for occupations growing out of the technological change in industry and business.

g. the provision for apprenticeship-related instruction programs to provide the necessary technical instruction to persons learning their skills through a formal apprenticeship program.

h. provisions for the establishment of supplementary training programs to assist employed workers to upgrade themselves in their present jobs or to prepare for a new job.

(3) The ability to adjust to national emergencies as evidenced by the successful efforts oft he Federal-state-local relationships in vocational education in war production training in World War II, veterans training, and manpower training.

(4) The ability to adapt to meet national goals and changing socioeconomic needs as evidenced by the changes in vocational education since the Vocational Education Act of 1963 and the Amendments of 1968.

(5) The quantity of services delivered by vocational education, since over 323,000 people were served in Ohio during the 1970 fiscal successful efforts of the Federal-state-local relationships in vocational education.

(6) Vocational education districts in Ohio are organized to provide sufficient student base and tax base in order to provide a breadth of vocational education services for youth and adults.

(7) The scope of vocational education programs for the disadvantaged and handicapped have been expanded to the point where they can help the public school systems in the major cities to make significant changes in the social and economic systems within those cities.

(8) The educational leaders in the state of Ohio, including the State Superintendent of Public Instruction, are convinced of the need for broad expansion of vocational education programs and are working diligently to achieve the minimum goals established by the State Board of Education.

(9) The state of Ohio has provided $75,000,000 to match local dollars for the construction of vocational education facilities in accordance with the plan established for vocational education.

(10) The state of Ohio makes significant investment of state funds through the foundation program in vocational education programs at the high school level and through separate funds within the state budget for out-of-school youth and adult programs.

(11) Vocational education programing is directed at social and economic problems of youth and adults. At the preparatory program level in the high school vocational education becomes a core program, built around the occupational goal of the person enrolled. It includes in that core program skills, technical knowledge, work habits, attitudes and safety judgments to enable a student to become employed and to advance in his chosen occupation.

B. Weaknesses

(1) The funds appropriated at the national level are much too small in terms of the objectives established in the Vocational Education Amendments of 1968. Program planning and budgeting is needed in order to relate the goals and appropriations to the needs in the nation.

(2) Manpower programs are basically job training programs and therefore are vocational education. The control of this large and important program of vocational education, however, rests in the Department of Labor. It appears that the Department of Labor has consistently made efforts to develop competing systems of vocational education without success and more dollars are invested in vocational training through the Department of Labor than are made available for the total program of vocational education under the U.S. Office of Education.

(3) There has been a continuing loss of personnel in the Division of Vocational and Adult Education in the U.S. Office of Education to the point where that agency cannot maintain a leadership role in relationship to the states.

(4) The establishment of the nine regional offices in vocational education provided for a dispersement of personnel without the addition of sufficient personnel at either the federal or regional level to provide adequate services to the states.

(5) The Department of Health, Education, and Welfare, or the leadership of the U.S. Office of Education has not provided aggressive leadership in achieving the full funding of the Vocational Education Amendments of 1968.

(6) Within the state of Ohio, the basic problem is the passage of local levies to provide the local share for construction and operation of vocational education facilities. This reluctance to vote local levies is a problem for all education in Ohio, not only vocational education.

(7) Too many teachers and parents still consider the only acceptable occupations to be those in the professions.

(8) Vocational education is only one small unit in the massive Health, Education, and Welfare organization, whereas the manpower unit in the Department of Labor is at the Assistant Secretary level. Such relative positions make it virtually impossible for the needs of vocational education to be given significant attention by HEW. The Department of Labor, with its direct input into the President from the Secretary level concerning manpower training, can and does give a higher priority to the training functions of the manpower than given under HEW.

(9) Experiences with the allocation of disadvantaged and handicapped money indicate that the major cities have not made long-range plans for the use of such discretionary funds to serve the out-of-school unemployed youth. It is obvious that they need assistance in planning for the educational services needed by the community outside of the secondary schools.

It is obvious that many of the weaknesses listed above are administrative shortcomings, principally at the federal level. One administrative shortcoming that I see at the state level is the separate control relationship between vocational and technical education, since the State Board of Education has the responsibility for vocational education, and the Board of Regents has the control of the technical education. Our Division of Vocational Education, however, has a working relationship with the State Board of Regents under a memorandum of agreement.

As indicated above, there is no funding pattern at the Federal level for the goals established under the Vocational Education Amendments of 1968 which would enable the state to achieve the goals established by that Act.

Q. 2—"What is the proper relationship between vocational education and other Federal programs, particularly in manpower and higher education?"

Vocational education has been a generic term, indicating preparation for work at the semi-skilled, skilled and technical levels of employment. Vocational education provides the broadest delivery systems for vocational and technical education of any program organization in the nation. In this fiscal year vocational education serves over 8,000,000 people at all three levels identified above.

Program services are provided to the less able, average and above average students, normal, disadvantaged and handicapped youth and adults and in job preparation in occupations relating to agriculture, business, distribution, homemaking, health and trade and industrial occupations. It also invests in programs to improve the home and family living through instruction for youth and adults in child care, money management, nutrition and home management. Manpower development programs are essentially vocational education programs. The Department of Labor has a relationship with such programs in terms of broad identification of employment opportunities and the handling of subsistence payments to the individuals enrolled in manpower training programs; the educational component of manpower training should be under the direction of the Bureau of Adult and Vocational Education, in the U.S. Office of Education of HEW. An alternative would be to move vocational education out of the U.S. Office of Education and into a position of HEW which would permit it to participate with the Department of Labor on equal footing.

In relationship to higher education, the concern at the national level should be with the educational program to be provided, rather than the institution in which it is offered. Congress appropriates money through vocational education for the semi-skilled, skilled and technical levels. Experience has indicated that vocational education will treat technical education as a unique field of education and not as preparation for either skilled occupations or preparation for occupations requiring a four-year baccalaureate degree.

For the benefit of providing vocational and technical education services for people, funds should continue to be appropriated for those areas of education through the Vocational Education Amendments of 1968 to the one State Board of Vocational Education within each state, including the educational funds now assigned to manpower programs in the Department of Labor.

Q. 3—"How can Federal vocational education programs best reflect the administration's interest in (a) the 'income strategy,' (b) the New Federalism and (c) the blue collar worker?"

At the national level there must be a determination as to the best vehicle to serve as a change agent for the social and economic order within the United States. There is no question but what past welfare programs have led only to increases in welfare recipients and the desire of such recipients to participate in the share of goods and services at a higher level without participation in the production of goods and services. It seems essential that a national policy be established to either provide for a sharing of less and less goods and services with more and more people under increased welfare or the initiation of a massive effort to increase the productivity of all persons, including a significant number of those now on welfare or planning to be on welfare as a way of life.

It appears that the only vehicle for massive change in the social and economic order must be the public education system. This is the only institutional organization in the nation that has a touch with almost all of the children during their most formative years, and in which billions of dollars are already invested. Vocational education can be one of the change agents to revitalize that system of education in order to encourage all youth, through a system of vocational education and guidance, to make a tentative choice through a career motivation, orientation and exploration program in Grades K–10; to prepare for employment or further education in the last two years of their high school program; to provide for youth and adults not only a broad preparatory vocational program at the high school level, but preparatory vocational and technical education programs beyond high school and a continuous program of retraining and upgrading services to employed workers throughout the life of the individual. There can be no income strategy without a major emphasis on the preparation of the majority of people for the work demanded in a technological society and the encouragement of all people to participate in the world of work.

The concept of New Federalism must not make the mistake of assigning money to the states in such a manner as to relieve the state of existing investments, rather than assisting the states to invest in new and changing patterns of education, including a broad program of vocational education as described above.

The blue collar worker must be made an equal partner in the world of work with the professional, or our whole economy will come to a grinding halt due to a shortage of skilled workers who care. The dollar cannot maintain its strength at home or abroad unless the productivity of all workers increases as fast or faster than the wage increases paid by business and industry.

In addition to the job training programs identified above, research indicates that in order to change the input of youth into the schools, there must be a change in the disadvantaged and handicapped homes in order to change the value systems in those homes. There is adequate research to indicate that all the pre-school, headstart, kindergarten and other money expended upon children is wasted unless those investments make a change in the home. To date I know that only vocational education is making investments in the inner-city sections of our major cities in an attempt to find a procedure to change the value systems of such homes.

Q. 4—"To what extent could substantial improvements in vocational education be made within current levels of expenditures?"

All of the training funds now allocated to the Department of Labor for such wildly unsuccessful programs as the National Alliance for Businessmen, the Job Corps, the Manpower Development and Training programs should be assigned to the Bureau of Vocational and Adult Education for use through existing channels in keeping with the goals of the Vocational Education Amendments of 1968 and the retraining requirements under the Manpower Development and Training Act. The history of unsuccessful investments in these programs operated under the Department of Labor have been identified again and again by studies done by the General Accounting Office, Congressional committees, etc.

Studies of cost effectiveness would indicate that for every dollar invested in vocational education from the Federal level, the state and local communities invest from $3 to $10. There is no other Federal program in which the states invest any significant amount of dollars. Such a comparison between the vocational education services and the other training services under the Department of Labor would indicate that the Federal-state-local relationship of vocational education is a more effective and economic approach to providing vocational education services to youth and adults.

Q. 5—"How can Federal vocational education programs best serve as a catalyst for reform in the state vocational educational agency without violating the principles of the New Federalism?"

There is a real question as to whether this is the time to change from categorical aid to block grants when state and local communities are faced with massive dollar problems. There is no question but what massive new directions in vocational education have been developed as a result of the changed goals in the establishment of the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968. As the additional funds have been made available under these two changes in the original Smith-Hughes and later George Barden Act, new programs and new directions have been implemented at the state and local level. As indicated earlier in this paper, dollars provided under the Vocational Education Acts have stimulated additional state and local funds until there has been a multiplier effect of the Federal dollars directed towards these new changes. As examples:

A. In the state of Ohio, in 1964 we were serving through vocational education approximately 443 disadvantaged students at the secondary level. During this current fiscal year we are serving approximately 14,238 disadvantaged and handicapped students through our vocational education programs at the high school level. We are serving 19,529 disadvantaged people through the set-aside funds for disadvantaged and 15,994 youth and adults under the set-aside for handicapped persons.

B. Inner-city family life programs have been initiated in all of our major cities.

C. A career motivation and orientation program, serving 30,000 students has been initiated on a pilot basis in 47 schools.

Many other changes too numerous to mention have come about as a result of the identification of new goals under the Vocational Education Act of 1963 and the Amendments of 1968.

If the New Federalism anticipates providing block grants of funds for broad general purposes to the states without establishing social

and economic goals for the use of such funds we will find a regression in services rather than an implementation of new and different services.

Q. 6—And "How can the longstanding conflict that exists between HEW and the Department of Labor in this field be eased, and administration of Federal vocational education programs be correspondingly simplified?"

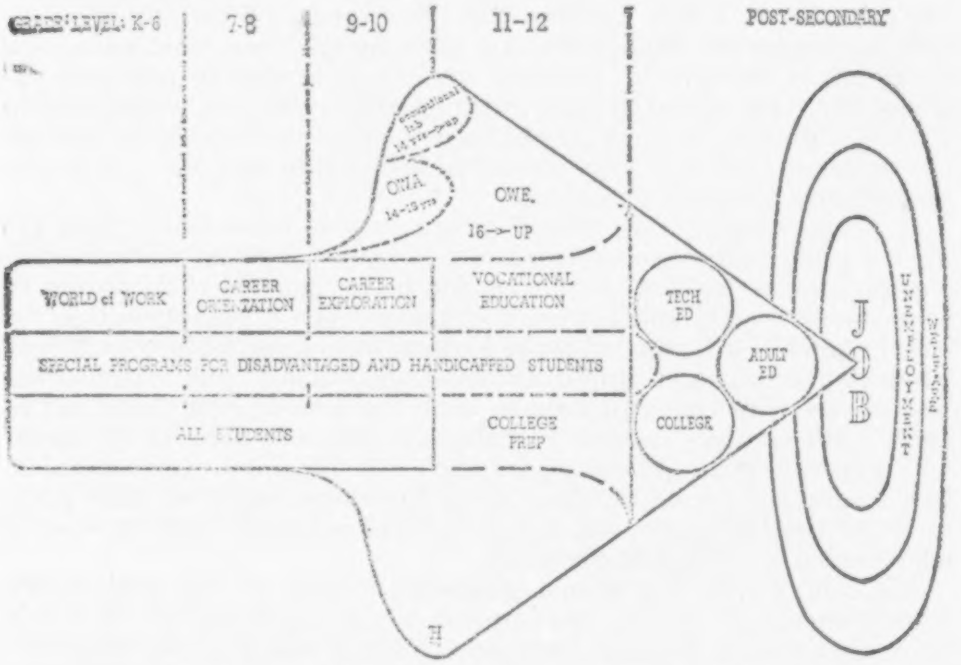
The longstanding conflict between HEW and the Department of Labor in the field of vocational education can be eased by assigning to each responsibilities and functions assigned to these agencies at the national level. Health, Education, and Welfare must develop a manpower policy and become responsible for all of the educational programs which are vocational education. The fact that HEW has had no interest in either vocational education or manpower training is obvious. HEW is such a massive agency that the funding for vocational education has had an extremely low priority. Personnel working with manpower training as a part of the Bureau of Adult and Vocational Education have been at such a low level in the government that they cannot deal effectively with the high-ranking personnel in the Department of Labor who have usurped educational prerogatives because of the lack of interest, priorities and administrative effectiveness in the Department of Health, Education, and Welfare.

The vocational education relationship, under the Vocational Education Amendments of 1968, provides a very simplified and direct relationship to the development of training programs at both the state and local community levels. Studies done by the Department of Labor itself indicates that the most successful program under Manpower training has been the institutional training programs under the direct supervision and control of the vocational education agencies at the state ad local levels. Time and again, such as under war production training and veterans training, the Federal-state-local relationship in vocational education has proven itself to be capable of adjusting to new goals and emergencies, providing those goals are identified and funds are provided commensurate with the goals. At the present time a rough estimate of the Federal share of the cost of the goals established under the Vocational Education Amendments of 1968 would be $4,500,000.00.

At the present time the funding for vocational education is only at about $450,000,000. The Department of Labor has wasted more money on well-meaning, but ill-advised efforts to become a second educational agency than Vocational Education has ever had from the Federal level to develop the kind of programs that now deliver services to over eight million people annually.

In summary, Ohio is moving to establish a system of vocational education and guidance, starting with the improvement of disadvantaged homes, offering a career motivation, exploration and orientation program, providing programs to catch disillusioned, dropout-prone girls at the seventh and eighth grade levels in a home economics impact program and dropout-prone 14 and 15-year old boys to an occupational work adjustment program at age 14 and 15, continuing through a broad vocational program for youth age 16 while they are in high school and a vocational and technical education program for both preparatory, retraining and upgrading services for out-of-school youth and adults.

The concept of this system of vocational education and guidance is illustrated in the attached diagram.


GRADE LEVEL: K-6
7-8
9-10
11-12
POST-SECONDARY
occupational lab 14 yrs→up
OWA 14-15 yrs
OWE. 16→UP
WORLD of WORK
CAREER ORIENTATION
CAREER EXPLORATION
VOCATIONAL EDUCATION
SPECIAL PROGRAMS FOR DISADVANTAGED AND HANDICAPPED STUDENTS
ALL STUDENTS
COLLEGE PREP
TECH ED
ADULT ED
COLLEGE
JOB
UNEMPLOYMENT

EDUCATIONAL PROGRAMS TO PROVIDE AN EMPLOYABLE AND WELL ADJUSTED CITIZEN

B. SUGGESTIONS FOR IMPROVING FEDERAL LAW AND ADMINISTRATION OF VOCATIONAL EDUCATION AND MANPOWER TRAINING PROGRAMS

The false division of Federal concerns into "Vocational Education" and "Manpower Training" must be discontinued from the standpoint of efficiency, economy and effectiveness of services. Vocational education *is* manpower training and has demonstrated the capability to deliver training to both youth and adults in the most effective and economical manner and to supervise training done under private schools or programs in industry or business.

The Department of Labor should have the responsibility for the identification of persons who are unemployed and who can be retrained for the entrance into employment or upgraded in employment, for handling any stipends to be paid to persons while they are enrolled in training and for placement of those completing training. The Department of Labor is not, has not been and should not be looked upon as a training unit. The Department of Labor has had more massive failures in the programs of training that they have initiated than have been experienced in vocational education since the initiation of the program in 1918.

The strengths of the Department of Labor and the Bureau of Employment Services within the individual states should be recognized and utilized. The Department of Health, Education, and Welfare, however, needs to establish a manpower training policy in which the functions of training and/or education encouraged from the federal level are the responsibility of the Federal-state-local relationships through that department. Reports to Congress from the General Accounting Office have indicated the massive failures of such programs as the National Alliance for Businessmen. Studies conducted by the Department of Labor indicate the effectiveness of the institutional training under the Manpower Act done by the vocational education programs in our public education system. It is time to place the responsibility for education and training within the agency responsible for that function or transfer that entire function to another unit of government, such as a Department of Education and Manpower, reporting directly to the President.

It is suggested that a national policy must be established, identifying the public education system as a basic unit for social and economic change, and a pattern developed for investment in that system to achieve such social and economic changes. Such a goal would not be based upon block frants, since the Federal level does not have sufficient funds to maintain and support the existing system of public education. Rather, the direction will need to be in the area of categorical aid to assist with changes in that educational system to achieve the social and economic goals. Planning for such activities, however, cannot be based upon the period of office of one President, any more than planning for the landing on the moon could be achieved in the period of office served by President Kennedy.

We cannot afford a second education system in this nation. We should, therefore, change and improve the system which we have and point that system toward solutions. This is a better choice than continuing to invest billions of dollars in bandaids through manpower and welfare programs after the problem has been ignored or allowed to be compounded by reason of the lack of services to youth as they progress through our public education system. In this context, if we realize that only fourteen out of every one hundred youth who start the first grade are likely to graduate from college, even in today's market, the needs of the other eighty-six require that full consideration be given to the growth of vocational education at the high school level and the growth of vocational and technical education for out-of-school youth and adults.

All youth, including those going on to professions, need the services of career motivation, career orientation and career exploration programs described earlier. This program, however, would cost about $1.2 billion for the nation.

The goals established in the Vocational Education Amendments of 1968 are rather clear, but no one at the Federal level has ever quantified these goals and identified the cost connected with them or established a planning pattern for growth of services to people and investments of dollars to reach these goals. The existing goals in the Vocational Education Amendments should be quantified and a decision made by the National Administration and Congress as to their intent to assist the states, both fiscally and through leadership to reach the goals. A rough evaluation of the goals in the Vocational Education Amendments of 1968 would indicate that investments in vocational education should be accelerated to approximately $4,500,000,000 over a period of four years, if we are really serious about achieving the goals established in the Act.

The present level of services in the Division of Vocational and Technical Education in the U.S.O.E. is a serious matter. There are fewer people now in the Division of Vocational and Technical Education to give leadership to the important program outlired in the Vocational Education Amendments of 1968 than there were five or six years ago. It is obvious that the needs of the Division of Vocational Education have been ignored in the allocation of personnel throughout Health, Education, and Welfare and in the Office of Education itself. While vocational education is essentially a state and locally operated program, leadership is needed from the U.S. Office of Education level in order to assist states to initiate change and to benefit from the experiences of other states in the development of programs. The position levels of the personnel in the Division of Vocational Education who deal with manpower training certainly does not compare with the status that is accorded to manpower training services in the Department of Labor.

Dr. Sidney Marland, present Commissioner of Education, U.S. Office of Education, has indicated an interest in an expanded role for vocational education throughout the nation and within his Office of Education. There is no indication, however, that he has been permitted to improve the services by the addition of personnel to achieve these expanded goals. The Bureau of Adult and Vocational Education, which houses the Division of Vocational and Technical Education, should be given improved status within the Department of Health, Education, and Welfare, including representation at the Assistant Secretary level or a separate Department of Education and Manpower should be established in government in which the area of vocational and technical education and manpower would be one of the major significant units at an Assistant or Deputy Secretary level.

Present Federal investments in vocational education are totally inadequate in terms of the role that vocational education can play in our social and economic order or as a change agent within the system. Vocational education is not even receiving the full authorization of the Vocational Education Amendments of 1968, much less the funding required by the identified goals. The first step should be full funding under the Vocational Education Amendments of 1968.

This Nation became strong on the basis of the productivity of its people, its inventive genius, profit-making system and a deep commitment of the people to freedom and our form of government. Experiences with our youth groups in vocational education indicate that youth who have a goal, who have a commitment, are not the dissident youth, but are those who will speak up for America. We believe that through vocational education we not only provide people with a means of earning a living, but with a reason for life and appreciation of the opportunities offered in our nation.

Vocational education is a means to an end, not an end within itself. This form of education has served the nation well in periods of depression, in periods of war, in periods of training of returning veterans. It can also accept a major role in developing solutions to the massive social and economic problems facing our nation in a bewildering technological age and a highly competitive international society.

OKLAHOMA

State Director—Dr. Francis Tuttle

THE EFFECTS OF THE ADMINISTRATION'S BUDGETARY RECOMMENDATIONS UPON VOCATIONAL-TECHNICAL EDUCATION IN OKLAHOMA

(By Dr. Francis Tuttle, State Director Vocational and Technical Education, Stillwater, Oklahoma)

I fully realize that much has been said about the effect of funding reductions for vocational and technical education at the national level. As a State Director, I would like to express to the committee the concerns which I have regarding the proposed reduction of funds. I would like to express these concerns by telling the committee what is presently being done in Oklahoma under the current funding situation and to try to express to you what would be the results of the proposed reduction in funds. The program of vocational and technical education in Oklahoma, like the programs in many states throughout the nation, is not fully dependent upon Federal funds by any means; however, these grants do act as a stimulus to produce additional monies at the state and local level. Also, the provisions which accompany the appropriation of funds by the Congress do give national direction to programs of vocational and technical education throughout the nation.

I am primarily concerned about two phases of the budgetary changes that have been proposed to this date. My first concern is the reduction in the total funds for vocational and technical education at the Federal level. The second concern I have is the deletion of the categorical designations which have been so effective in directing the major thrust of programs since the 1963 Vocational Education Act and the Amendments of 1968. A reduction in funds at this particular point in time—when our nation is so burdened with people who are unemployable and so hampered by the lack of trained manpower—would be most unfortunate. At a time when the existence of vocational-technical education means hope and a future for persons who have not been trained before, a reduction in services would be a serious blow to many people who need and can profit from training for employment.

Since the specification of the expenditure of funds has been designated by categories, vocational and technical education has begun to move in the direction of meeting the needs of persons who have been overlooked by the educational system to this point. Special programs for the disadvantaged and handicapped, cooperative training programs and exemplary programs, as well as the efforts of research and development, have truely been effective in redirecting major efforts of vocational and technical education. The people in these categories are now being introduced to a world of work, trained, and placed in employment along with the regular occupational training students. We are still in the process of learning how best to meet the special needs of these people, but progress is being made. Our follow-up studies of the disadvantaged and handicapped trained in Oklahoma show that these persons who complete training programs are just as effective in getting jobs for which they were trained as are the regular students in vocational programs.

CHANGES WHICH MIGHT RESULT FROM BUDGETARY REDUCTIONS

We are concerned, as I am sure the Congress is, with what the impact of a funding cut would be on the people who are looking to vocational and technical education for full preparation for employment or for upward mobility through increased competency. The results of decreased funding would be (1) all plans for initiating new programs would have to be canceled and (2) many of the new and special programs started in the past few years would have to be terminated. The following review mentions all of the recently initiated programs which are endangered—some we could continue, but many we could not.

A number of new area vocational-technical schools are presently planned for starting in the very near future. The three most nearly ready for starting are the Mid-America Area Vocational-Technical School which would have 28 programs, the Great Plains Area Vocational-Technical School which would have 26 programs, and the Western Oklahoma Area Vocational-Technical School which would have 19 programs. This would mean that if funds are not available for new starts, 73 new programs with a potential for training 2,378 students next year would not be able to start.

A cut in appropriations would affect the health occupations training program presently being offered by the State Department. This would result in adding to the already critical problem of a shortage of health manpower in the state. According to a recent study done by the Division of Research, Planning, and Evaluation of the State Department, a report entitled "Health Manpower Needs in Oklahoma—1971–72" showed that employment in the health field in Oklahoma increased by 55.2 percent from 1963 to 1969. This report further estimates that by July, 1971, 6,928 additional trained health personnel will be needed in Oklahoma. This figure will increase to 11,515 by 1972 and 23,017 by 1975. Nursing personnel from assistant to RN is by far the greatest need highlighted in this report. Summary figures indicate that in the health field, new programs which have been initiated in fiscal year 1971 include 18 programs serving 438 secondary students this year and projected for next year 11 programs which will train 400 secondary-level students. Adult programs show in 1971 a total of 86 new programs training 1,295 people and in 1972, 22 new programs which would train 345 people. The post-secondary level training for 1971 includes 45 new programs started training 1,315 people and in 1972, a proposed 25 programs which would mean training for 1,132 people. If funds are reduced, cutbacks in health programs offered throughout the state could mean almost 5,000 fewer trained persons in the health field. This critical shortage of trained people in this most sensitive area could be very harmful to the welfare of the state.

Cooperative Office Education programs, which most effectively train secretarial and stenographic employees, would be curtailed if appropriations are cut. This is an area of high priority need in the state. Our data show that one program presently serving 18 students would have to be discontinued if funds are cut and that five new cooperative office education programs serving 125 students which are planned for next year could not be started.

Distributive Education programs are training students for a wide variety of high-demand occupations. These programs would be seriously hampered if funds are not available. Presently, 68 classes in 16 centers training 988 people to serve as cashier-checkers in supermarkets would not be able to continue next year. Also, this division supervises real estate classes, 18 of these in 15 centers that served 544 people this past year would have to be discontinued. Eleven classes for persons in marketing and distribution serving 331 people cannot continue next year. The programs in high schools which could serve some 400 students could not start next year as planned if funds are cut.

The Coordinated Vocational Education Training program would be seriously hampered if funds are reduced. Twenty-six programs were established in 16 schools this year working with approximately 900 students. These CVET programs aimed at preparing students for entering advanced training programs would not be able to be continued if funds are reduced. This coordinated program which brings together the vocational teacher with the teacher of English, of mathematics, of social studies in a coordinated effort at meeting the special training needs of disadvantaged and handicapped students has made real progress in the past year in meeting these special needs. Many school administrators throughout the state have asked for expansion or initiation of programs in their schools and this would be an impossibility without the special category funds for disadvantaged and handicapped.

Cooperative programs with Rehabilitation Services to assist special needs students have been initiated. Four diagnostic centers have been established and the number of people that they can serve and guide into programs of vocational education is almost unlimited. We had a summer program in 1970 for approximately 1,200 students. We plan to serve 1,500 students in the program this coming summer. Cooperative programs with the State Welfare Department are now operating in nine different state institutions. Eleven special programs are being carried on in the area vocational-technical schools. Two sheltered workshop projects are in progress in the state. Five junior colleges now have cooperative programs. We see a great need for special workshops and institutes for training of teachers of these types of programs, and the Education Professions Development Act funds are being used to give this special training that is needed. Many of these programs would have to be deleted if funds are reduced.

The Trade and Industrial Education programs aimed primarily at training persons for employment in industry would suffer severe reductions if funds to continue on-going programs and to start new programs are not available. If funds should be cut, 374 classes in 23 centers serving 3,527 adults could not be continued next year. In the high school level programs, some ten high school programs serving 300 students could not start next year as had been planned.

Home Economics programs which train not only for more effective home management and family living, but also prepare students for occupations related to home economics skills would be affected by reductions in the budget. The occupational training programs in home economics which might be reduced show 874 students at the high school level being trained in 35 programs, 35 students in two post-secondary programs, and approximately 1,000 adults which might be affected by budgetary reductions. New programs which are planned but which could not start next year show at the secondary level, 20 programs for 560 students; at the post-secondary level, two programs for 80 students; and at the adult level, approximately 1,000 adults who would not receive this occupational training. In the useful consumer homemaking program there are now 350 programs; nine new requests for programs serving 641 students would not be started, and seven programs at the post-secondary level serving 290 students could not be started.

Persons being trained through Cooperative Vocational Education programs funded under Part G of the 1968 Vocational Education Amendments would suffer severely from a reduction in funds or from the deletion of this category. Presently, 17 programs of Cooperative Vocational Education serving 501 students could not continue. Eleven new programs in CVE with an anticipated enrollment of 418 students which are planned for next year could not be started. Programs of curriculum development and teacher education for cooperative programs which are scheduled would have to be deleted.

The Technical Education Division is currently administering and supervising four programs which are funded by Federal monies for special programs. These include three programs for the disadvantaged and one exemplary program which would be drastically curtailed in the event of loss of funds. Eastern Oklahoma State College at Wilburton has a special program for orienting disadvantaged high school students to the world of work and occupational programs. This program is designed to serve 180 students through the summer. Murray State College at Tishomingo is conducting a program to upgrade basic skills of disadvantaged high school students who are planning to enter post-secondary technical education programs in the fall of 1971. Fifty-six students are planning to participate in the program this summer. Sayre Junior College at Sayre is conducting a program to train academically disadvantaged students as electronics repairmen. This program is currently training 16 disadvantaged students and would like to expand. The Tulsa Junior College is conducting an exemplary program for the improvement of basic skills of approximately 300 academically disadvantaged students who want to enroll in occupational education programs at the college. All of the institutions conducting these programs would like to increase their offerings in this area if funds do become available.

A reduction in ten percent of funds set aside for research would seriously curtail the activities of our Division of Research, Planning, and Evaluation. We strongly urge that the ten percent for research be included in the appropriations and that, as stated in the 1968 Amendments, one-half of this amount be appropriated to the states and one-half of this amount remain with the Commissioner. Some of the activities of our Research Division include the long-range planning effort by the Planning Unit which will result in a master plan for vocational-technical education in Oklahoma. The division furnishes demand and supply information to decision makers in what is known as the Occupational Training Information System. This system collects demand and supply data from all available sources throughout the state and provides decision makers with the data necessary to allocate resources on the basis of actual needs by specific occupational training areas. The Evaluation Unit of the Research Division is presently developing a system for the evaluation of all vocational programs within the state. Research funds are being used to fund approximately 40 projects to be carried on by individual teachers throughout the state to try new methods and new ideas for improving the delivery of vocational education to students. This division is now developing a total information system which will combine the maximum amount of data and information available on any particular subject and make it available to the administration in order to improve the decisions which are made relating to programs of vocational and technical education. A VIEW (Vital Information for Education and Work) project will be initiated in 32 centers. This will provide up-to-date, localized information on jobs and training opportunities throughout the state. A large metropolitan school system in Oklahoma City is cooperating with our Planning Unit to develop a long-range plan for vocational-technical education in that particular school system. The new projections which will be possible if funds are continued would include the following: (1) research to develop the procedures and obtain information needed for evaluation of guidance, counseling, and placement services in the public schools; (2) research in health occupations program designed to implement the program guide for career development and upward mobility in the health occupations area; (3) expand VIEW to an additional 100 centers; and (4) support the development of curriculum materials in new and emerging occupations for future programs.

Projects involving development of curriculum materials that would be curtailed as a result of the President's recommended appropriations for the 1968 Amendments are as follows:

Exemplary—Basic Core Curriculum for Vocational Agriculture: Total of four projects serving approximately 400 teachers and 17,000 students. This project was started in fiscal 1970. Vocational Agriculture I and II Basic Core Curriculum notebooks will be completed in fiscal 1971; Vocational Agriculture III and IV notebooks are needed to complete the project. Without funds, this would be impossible.

Cooperative Education—Cooperative Office Education: One project serving approximately 50 programs and teachers and 1,500 students. A Basic Core Curriculum for COE is planned for this summer. The project would be curtailed without funding for cooperative education. Distributive Education: Total of two projects serving approximately 60 teachers and 2,700 students. DE II Basic Core Curriculum will be completed during fiscal 1971; DE III Basic Core Curriculum is planned for fiscal 1972. Without funding, this project will be curtailed.

Disadvantaged and Handicapped—Food Service Curriculum Material: One project serving approximately ten programs and 400 people. This material is being developed at present; without funds, this project will not be completed. Coordinated Vocational Education Training: Total of three projects serving approximately 24 teachers and 370 people. These curriculum material notebooks were developed for Home and Community Service, General Mechanical Repair, and Construction Trades. These notebooks were used on a pilot basis this past year and need revision this summer. Without disadvantaged and handicapped funds, this project cannot be continued. Auto Mechanics Curriculum Material for the Disadvantaged Student: One project serving approximately 70 programs and 700 students. Development of this project is underway at the present time; without continued funding, the project will not be completed.

The Adult Education program, while a part of each of the divisional efforts, is concentrated in one office for reporting purposes. Records show that in 1969–70, 497 classes or programs for adults were held plus 596 in the area schools training 31,448 adults. As of January, 1971, approximately 18,000 adults were enrolled in programs with a total anticipated service this year of 36,000 adults for training or upgrading for the job. This total number of 36,000 could be doubled next year if funds are available for this type of expansion. An adult education model is being developed within the state which will look at the special training needs of the underemployed; and a special effort will be made in the two metropolitan areas, Oklahoma City and Tulsa, to determine the roadblocks to upgrading of people who fall in the category of underemployed. The adult education program could be provided for probably another 36,000 individuals if funds were available next year.

CURRENT STATUS OF VOCATIONAL AND TECHNICAL EDUCATION IN OKLAHOMA

Now, let me briefly describe to you some of the present on-going programs in vocational and technical education in the state of Oklahoma. The State Department of Vocational and Technical Education, under the policy-making provisions of the State Board for Vocational and Technical Education, is involved in five major training activities. These activities are (1) training secondary students, (2) training post-secondary students, (3) training adults, (4) manpower development training, and (5) special schools training.

Secondary school programs are designed to prepare students to enter the world of work upon graduation or to go on to advanced training. Students in this type program usually spend part of each day, from one to three hours, in occupational training and part of the day in general education courses. The major exception to this definition is training in traditional home economics which trains students in consumer education rather than preparing them for the world of work. Post-secondary programs are designed to train youth or adults who have completed or left high school in high-level skills or technical competencies in an organized program of study. Many of these programs are located in the junior colleges, technical institutes, or area vocational-technical schools. Adult training programs are designed to train those who cannot attend other training programs on a full-time basis. Programs are usually found in local educational institutions and are conducted at night. However, some programs are being provided during prime-time hours. The purpose of the program is to provide adults an opportunity to acquire new skills in preparation for employment or to acquire training which upgrades the skills they presently have. Manpower development training is designed to provide training for unemployed adults. This type of program provides funds to pay students a subsistence allowance during their training period, thereby allowing them to concentrate their activities in the training area on a full-time basis. Special schools programs are conducted to satisfy the needs of a particular business or industry. This program is designed to train unemployed or underemployed adults for a specific job in a specific new or expanding industry.

Within each of these programs and an integral part of the training described are offerings which provide the special effort necessary to properly enroll, train, and place in employment those persons who may be described as disadvantaged and handicapped. The cooperative and exemplary type programs are exploring and demonstrating new ways of approaching special problems in the training of individuals for employment. The research effort at the state level has now been expanded to include the areas of research, planning, evaluation, data analysis, and the development of new exemplary programs.

ENROLLMENTS

The following enrollments for the five training activities are projected for the 1970–71 fiscal year.

TABLE I—Program Enrollments

Program	*Enrollment*
Secondary Programs	63,434
Post-Secondary Programs	4,183
Adult Programs	31,448
Manpower Development Programs	2,750
Special Schools	2,345

I would particularly like to call your attention to the attached appendices which will present in more detail the present picture of training programs in Oklahoma. Appendix A presents the types and numbers of training programs offered at the secondary and post-secondary level in Oklahoma. Appendix B gives a breakdown of secondary and post-secondary enrollment by occupational objective (what the student is training for). Appendix C presents data on follow-up of students who have graduated from secondary and post-secondary programs. This table shows that of those students who are available for employment, some 75 percent are placed in jobs directly related to the students' training program. It also shows that only four percent of the students trained are unemployed. This compares to a total unemployment of possibly twelve percent for all persons in this age category.

THE AREA VOCATIONAL-TECHNICAL SCHOOL CONCEPT

A new development in vocational-technical education in the state has been the growth of the area vocational-technical school. This development has greatly increased the effectiveness of the program offerings in vocational education in our state. There are presently 532 programs in area schools serving 13,432 secondary, post-secondary, and adult students. These programs are being carried on in 18 area schools and they serve 75 percent of the total population of the state. A plan has now been adopted by the State Board which in five years will place an area vocational-technical school within commuting distance of every student. Secondary students attend their home high school on a half-day basis for general education courses and the area school the other half-day for occupational skill training. An area school may serve as many as 30 participating high schools.

I have attempted to outline the effect of a budget reduction on vocational and technical programs in Oklahoma. In essence, what we see as a prospect for the state, if the full provisions of the Vocational Education Amendments of 1968 are enacted, is expanded opportunities for the 80 percent of the population who do not need a baccalaureate degree for employment, training and retraining of our unemployed and underemployed adults, increased post-secondary offerings for technically trained manpower, and extended research, planning, and evaluation efforts. I respectfully urge the Congress to support the states and local communities in this endeavor by appropriating the full amounts specified by the Vocational Education Acts.

APPENDIX A

HIGH SCHOOL AND POST-HIGH SCHOOL TRAINING[1]

Program type	*Number of programs*
Vocational Agriculture	351
Horticulture	3
Vocational Agri. Occ. Trg.	13
Agriculture Mechanics	178
Distributive Education	60
Health Service Occupations	9
Medical Office Assistant	5
Dental Office Assistant	3
Practical Nursing	19
Associate Degree Nursing	3
Inhalation Therapy Technician	3
Medical Laboratory Technician	4
Dental Hygienist	1
Medical Secretary	8
Medical Assistant	8
Medical Emergency Technician	1
Medical Records Technician	2
Occupational Home Economics	34
Home Economics (Useful)	350
Cooperative Business	48
Unit Records	12
Graphics	1
General Business	21
Typing and Related[2]	21
Electronics Technology	12
Drafting & Design Technology	12
Data Processing (Programming)	12
Chemical Technology	3
Graphics Technology	2
Mechanical Technology	5
Industrial Technology	2
Electro-Mechanical Technology	4
Architectural Technology	1
Agricultural Technologies	3
Forestry Technology	1
Computer Operator	1
Air Cond. and Refrig.	10
Aircraft Mechanics	8
Appliance Repair	3
Auto Body	16
Auto Mechanics	77
Brick Masonry	2
Cabinetmaking	7
Carpentry	53
Cold Type Composition	1
Commercial Art	4
Cosmetology	34
Diesel Mechanics	7
Drafting	21
Electronics	15
Electricity	2
Farm Equipment Repair	2
Heavy Equipment Operation	1
Hydraulics	1
Industrial Coop. Training	34
Machine Shop	18
Photography	2
Plumbing	1
Printing	17
Radio/TV Repair	1
Sheet Metal	2
Small Engine Repair	2
Tailoring	2
Upholstery	4
Welding	22
CVET	16
CVE	16

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[1] Does not include special programs which are not listed in divisional areas.
[2] Regular typing programs with partial funding.

APPENDIX B

SUMMARY OF 1970-71 SECONDARY AND POSTSECONDARY STUDENT ENROLLMENT BY OCCUPATIONAL OBJECTIVE

Occupational objective	Total enrol.	Number female	Number male	Grade level									Race						ECO DIS	ACA DIS	MEN HAN	PHY HAN	N-R DIS
				5-6	7-8	009	010	011	012	013	014	N-R	IND	BLK	M-A	WHT	OTH	N-R					
Vocational agriculture:																							
Ag Production	9,391	38	9,353	0	4	2,362	2,071	1,555	1,406	0	0	1,993	247	180	38	6,574	10	2,405	1,135	1,046	297	421	2,405
Ag Supplies & Services	321	1	320	0	0	67	58	62	65	0	0	107	9	5	0	232	1	76	37	33	6	10	76
Ag Mechanics	3,700	0	3,700	0	0	658	677	735	817	0	0	813	182	112	14	2,435	1	956	691	658	182	182	956
Ag Products	341	3	338	0	0	84	71	55	57	0	0	74	16	7	3	234	0	81	33	32	13	10	81
Orn. Horticulture	114	7	107	0	0	15	14	31	30	0	0	24	3	4	1	78	0	29	15	16	5	12	29
Ag Resources	568	0	568	0	0	110	131	99	115	0	0	131	18	4	1	408	1	154	72	43	24	30	154
Forestry	477	0	477	0	0	76	76	105	114	0	0	106	19	5	1	311	1	140	85	67	32	18	140
Other Agriculture	1,763	57	1,679	0	7	353	340	313	346	0	0	377	50	42	2	1,222	0	420	204	165	68	112	420
Distributive Education:																							
Advertising Services	96	39	57	0	0	0	9	30	43	1	2	11	1	1	1	76	0	17	4	4	5	4	17
Apparel and Acc	365	305	60	0	0	0	37	91	174	10	5	48	8	7	2	282	0	66	20	13	4	7	66
Automotive Sales	195	11	184	0	0	1	23	63	80	2	0	26	1	7	1	151	0	35	19	28	13	10	35
Finacne & Credit	177	105	72	0	0	0	9	15	48	83	0	22	2	12	1	134	0	28	5	7	2	4	28
Food Distribution	260	63	197	0	0	0	8	93	122	2	2	33	6	6	2	202	0	44	9	15	4	11	44
Food Services	356	249	107	0	0	20	32	117	139	2	1	45	9	4	1	268	1	73	45	38	14	8	73
General Merchandise	355	210	145	0	0	0	16	103	186	7	0	43	3	11	2	274	1	64	29	25	13	10	64
Hardware	47	8	39	0	0	0	4	11	23	1	2	6	0	1	0	37	0	9	7	1	0	2	9
Home Furnishings	61	40	21	0	0	0	8	15	29	1	1	7	1	0	0	46	0	14	4	1	0	3	14
Hotel & Lodging	27	10	17	0	0	0	3	11	8	0	0	5	1	3	0	19	0	4	6	3	2	0	4
Industrial Mktg	33	3	30	0	0	0	0	7	22	0	0	4	0	0	1	25	0	7	1	1	0	0	7
Insurance	31	16	15	0	0	0	4	9	10	1	3	4	0	0	0	25	0	6	2	0	0	1	6
International Trade	23	8	15	0	0	0	3	8	9	0	0	3	0	0	0	19	1	3	0	1	0	1	3
Petroleum Sales	54	5	49	0	0	0	6	8	29	2	2	7	2	0	1	43	0	8	7	4	1	1	8
Real Estate	23	6	17	0	0	0	1	7	11	1	0	3	0	1	0	19	0	3	2	1	1	0	3
Transportation	77	41	36	0	0	0	5	27	35	1	0	9	2	1	0	63	1	9	8	6	0	3	9
Retail Trade	553	284	269	0	0	0	48	152	270	6	8	69	8	20	2	402	0	121	47	32	13	15	121
Wholesale Trade	43	11	32	0	0	0	3	11	22	0	2	5	0	0	0	35	0	8	1	2	1	1	8
Mid-Management	30	5	25	0	0	0	0	0	0	20	6	4	1	2	0	22	1	4	0	1	1	0	4

Health Education:																						
Dental Assistant	100	99	1	0	0	0	0	2	74	1	0	23	1	1	0	75	0	23	3	20	0	0	23
Dental Hygiene	28	0	28	0	0	0	0	2	0	0	0	26	0	0	0	2	0	26	1	0	0	0	26
Med Lab Technician	105	67	38	0	0	0	0	0	5	40	19	41	0	3	0	61	0	41	8	2	3	1	41
Nurse Associate	126	116	10	0	0	0	0	0	0	58	30	38	1	15	1	83	0	26	7	12	0	0	26
Licensed Practical Nurse	564	520	44	0	0	2	5	18	87	354	1	97	32	49	1	337	3	142	120	64	3	30	142
Nurse Aide	108	103	5	0	1	2	8	31	33	1	0	32	2	8	2	65	0	31	30	8	3	1	31
Surgical Technician	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Phy. Ther. Assistant	2	1	1	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Inhalation Ther. Technician	70	36	34	0	0	0	0	0	2	25	8	35		4	0	31	0	35	0	1	0	0	35
Medical Office Assistant	200	197	3	0	0	0	0	1	88	11	13	87	1	4	1	107	0	87	14	1	1	4	87
Medical Emer. Technician	22	8	14	0	0	0	0	0	0	7	0	15	0	0	0	7	0	15	0	0	0	0	15
Ortho. Assistant	10	6	4	0	0	0	0	0	0	8	0	2	0	0	0	8	0	2	0	0	0	0	2
Medical Rec. Technician	40	40	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	40	0	0	0	0	40
Medical Secretary	69	69	0	0	0	0	0	0	0	17	0	52	0	2	0	15	0	52	0	0	0	0	52
Health Services Occupation	330	305	25	0	1	0	9	71	158	89	0	2	20	34	1	273	1	1	52	26	2	0	1
Home Economics:																						
Homemaking (Useful)	26,524	25,688	836	0	208	7,304	5,559	4,445	4,476	0	0	4,532	1,304	1,467	143	18,347	140	5,123	4,107	2,664	1,058	689	5,123
Child Care	182	181	1	0	0	1	6	80	86	7	1	1	11	26	10	126	0	9	56	42	11	8	9
Clothing Production	240	239	1	0	0	52	29	58	72	24	1	4	16	33	2	169	0	20	71	50	27	7	20
Food Production	186	100	86	2	3	6	2	83	81	7	0	2	7	30	0	134	1	14	39	28	13	18	14
Home Fur. Services	60	60	0	0	0	21	23	12	3	0	1	0	9	3	0	42	6	0	20	10	2	5	0
Home Health Aide	15	15	0	0	0	6	7	1	1	0	0	0	0	0	0	15	0	0	5	1	0	0	0
Other Home Ec. (Gainful)	112	93	19	0	0	17	48	23	24	0	0	0	30	2	4	75	1	0	42	47	11	4	0
Business and Office:																						
Accounting & Bookkeeping	237	177	160	0	0	0	2	36	77	4	0	118	3	6	0	109	1	118	8	9	2	4	118
Unit Records	254	191	63	0	0	1	4	17	220	7	1	4	10	18	0	217	2	7	28	13	1	4	7
General Office Clerk	1,083	997	86	0	0	1	39	211	680	21	3	128	34	76	5	737	0	231	106	67	26	58	231
Communications	39	30	9	0	0	2	0	15	18	4	0	0	1	0	0	37	0	1	7	2	2	0	1
Material Support	21	4	17	0	0	0	0	0	0	21	0	0	1	1	0	18	1	0	0	0	0	0	0
Personnel & Training	15	14	1	0	0	0	0	1	14	0	0	0	0	2	0	13	0	0	4	0	0	0	0
Secretary and Stenographer	1,358	1,350	8	0	0	1	2	417	678	60	11	189	40	70	1	990	1	256	93	42	24	82	256
Office Management	36	2	34	0	4	4	1	5	18	0	1	3	1	3	0	27	0	5	2	2	1	0	5
Typing and Related	360	295	65	0	4	1	33	116	140	57	0	9	11	12	1	331	1	4	53	32	19	18	4

APPENDIX B—Continued

SUMMARY OF 1970-71 SECONDARY AND POSTSECONDARY STUDENT ENROLLMENT BY OCCUPATIONAL OBJECTIVE—Continued

Occupational objective	Total enrol.	Number female	Number male	Grade level									Race						ECO DIS	ACA DIS	MEN HAN	PHY HAN	N-R DIS
				5-6	7-8	009	010	011	012	013	014	N-R	IND	BLK	M-A	WHT	OTH	N-R					
Technical Education:																							
Eng. Related Tech	30	0	30	0	0	0	0	0	0	25	1	4	1	3	0	21	0	5	0	0	0	0	5
Aerotechnologist	45	1	44	0	0	2	1	8	15	13	3	3	1	0	0	36	1	7	0	1	1	6	7
Architectural Technologist	68	2	66	0	0	0	0	0	1	39	17	11	1	3	1	52	0	11	0	1	0	0	11
Chemical Technician	63	18	42	0	0	1	1	7	23	13	8	10	0	1	0	49	2	10	4	0	0	0	10
Civil Technician	65	0	65	0	0	0	0	0	1	38	15	11	0	3	0	49	2	11	2	1	0	0	11
Electronics Technician	877	11	866	0	0	2	16	79	110	342	182	146	21	58	4	631	6	157	52	39	9	51	157
Electro-Mechanical Tech	149	0	149	0	0	0	1	24	18	73	6	27	2	3	0	115	0	29	3	0	1	2	29
Industrial Technician	19	0	19	0	0	0	0	1	1	8	5	4	0	0	0	16	0	3	2	4	0	2	3
Instrumentation Tech	13	0	13	0	0	0	0	0	0	4	7	2	0	0	0	9	1	3	1	1	0	1	3
Mechanical Tech	97	0	97	0	0	0	0	0	0	51	29	17	2	0	0	75	2	20	15	7	1	7	20
Metallurgical Technician	31	0	31	0	0	0	0	0	0	9	17	5	0	0	0	22	0	9	2	1	0	0	9
Scientific Programmer	36	8	28	0	0	0	0	0	0	11	19	6	0	4	0	26	0	6	0	6	0	1	6
Technical Writing	7	2	5	0	0	0	0	0	0	3	3	1	0	0	0	6	0	1	0	0	0	1	1
Drafting & Design Tech	833	38	795	0	0	0	18	57	69	351	202	136	34	23	4	630	4	138	65	19	3	37	138
Pre-Technical	97	9	88	0	0	0	0	4	9	60	7	17	1	1	0	77	1	17	5	1	0	2	17
Ranch Operator	38	0	38	0	0	5	9	1	5	11	0	7	1	0	0	31	0	6	1	1	0	0	6
Computer Programmer	1,151	337	814	0	0	1	0	2	79	713	166	190	26	47	4	875	11	188	60	25	2	42	188
Fire & Safety Tech	80	2	78	0	0	0	0	0	0	67	0	13	0	2	0	65	0	13	0	0	0	0	13
Forestry Tech	24	0	24	0	0	0	0	0	0	11	9	4	2	0	0	13	0	9	1	2	0	0	9
Oceanographer	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Trade and Industrial:																							
Policeman	164	9	155	0	0	1	3	3	7	124	15	11	1	4	0	149	0	10	12	18	0	0	10
Air Cond. & Ref. Mech	292	1	291	0	1	1	35	129	86	16	2	22	27	10	1	234	0	20	24	5	2	5	20
Plumber	51	0	51	2	6	3	3	8	22	3	0	4	1	3	0	41	0	6	22	16	0	1	6
Appliance Repairman	67	0	67	0	0	5	15	18	25	0	0	4	2	1	1	56	0	7	9	11	4	2	7
Auto Body Mech	514	1	513	0	0	0	69	227	173	4	1	40	11	37	2	381	0	83	54	24	2	6	83
Auto Mechanic	2,502	3	2,499	0	8	43	433	994	824	10	1	189	92	203	7	1,812	12	376	375	212	57	57	376
Auto Parts Man	49	1	48	0	0	0	0	18	28	0	0	3	1	3	0	37	0	11	8	1	1	1	11
Aircraft Mechanic	263	0	263	0	0	0	10	123	110	2	0	18	3	12	0	273	0	25	14	9	0	1	25

Bus. Machine Repairman	2	0	2	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Commercial Artist	151	63	78	0	0	0	29	64	47	0	1	10	2	2	1	131	2	13	5	7	1	6	13
Display Layout Man	34	21	13	0	0	0	0	8	24	0	0	2	1	1	0	25	0	7	2	1	0	2	7
Photographer	84	30	54	0	0	0	8	28	42	0	0	6	1	2	1	75	0	5	8	3	4	1	5
Carpenter	1, 421	3	1, 418	0	6	32	349	487	439	9	1	98	97	91	8	1, 070	0	155	296	201	45	56	155
Electrician	77	0	77	0	0	1	8	35	26	0	0	7	0	1	0	24	0	53	6	2	1	0	53
Mason	66	0	66	0	0	0	12	36	14	0	0	4	2	8	0	24	0	32	1	2	0	1	32
Carpetlayer	4	0	4	0	0	0	0	0	3	0	0	1	0	0	0	4	0	0	1	0	0	0	0
Custodian	17	0	17	0	0	0	0	6	11	0	0	0	0	5	1	9	0	2	4	1	1	0	2
Diesel Mechanic	219	0	219	0	0	1	11	113	78	2	0	14	8	4	1	191	0	15	10	4	0	3	15
Draftsman	648	67	581	0	0	11	68	255	255	10	1	48	25	20	3	504	2	94	35	24	3	15	94
Elec. Lineman	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Electronic Mech	349	5	344	0	0	0	54	146	122	4	1	22	10	19	3	294	1	22	33	5	7	24	22
Radio/TV Repairman	114	2	112	0	0	0	9	59	38	0	0	8	30	3	1	73	0	7	7	2	3	8	7
Dry Cleaner	25	10	15	0	0	1	7	9	5	0	0	3	6	2	0	11	0	6	11	11	0	5	6
Typesetter	20	16	4	0	0	0	1	12	5	0	0	2	0	2	0	16	0	2	1	1	0	0	2
Printer	469	100	369	0	0	0	80	188	170	1	0	30	27	33	6	351	18	34	38	57	7	25	34
Instrument Mechanic	3	0	3	0	0	1	0	0	2	0	0	0	0	0	0	3	0	0	1	1	0	0	0
Machinist	483	3	480	0	1	1	29	202	184	8	1	57	17	15	3	373	2	73	37	39	9	12	73
Sheet Metal Worker	87	0	87	0	0	0	22	32	25	0	0	8	0	0	0	79	0	8	3	0	0	1	8
Welder	761	0	761	0	2	17	101	265	262	15	1	98	31	78	1	519	1	131	125	83	24	30	131
Barber	6	3	3	0	0	3	1	2	0	0	0	0	0	2	0	4	0	0	3	0	0	0	0
Cosmetologist	1, 033	1, 031	2	0	0	1	17	529	416	4	0	66	23	120	5	738	0	147	102	44	24	7	147
Plastic Worker	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Fireman	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Other Food Ser. Occ	30	13	17	0	0	0	0	11	15	0	0	4	1	3	0	22	0	4	8	1	1	0	4
Baker	3	1	2	0	0	0	1	1	1	0	0	0	0	1	0	1	0	1	0	0	0	0	1
Cook/Chef	81	41	40	0	0	11	10	26	27	0	0	7	5	21	1	31	0	23	30	5	2	2	23
Butcher	17	1	16	0	0	1	1	4	11	0	0	1	0	1	0	14	0	3	5	2	0	0	3
Waiter/Waitress	60	50	10	0	0	2	5	17	32	0	0	4	3	16	0	35	0	6	11	0	0	0	6
Small Engine Repairman	62	0	62	0	2	3	9	15	27	0	0	6	2	1	0	55	0	4	8	12	6	2	4
Stationary Engineer	2	0	2	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0	0	1
Textile Worker	99	24	75	0	0	0	26	41	24	0	0	8	3	88	0	2	0	6	58	30	1	0	6
Leather Worker	1	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Upholsterer	86	22	64	0	0	0	31	31	17	0	0	7	5	6	4	63	0	8	11	11	8	4	8
Cabinetmaker	184	23	167	0	4	3	50	48	59	2	2	16	4	34	0	120	0	26	54	23	4	5	26
Other T & I Workers	696	300	396	0	9	24	62	184	364	0	1	52	17	68	3	517	3	88	127	50	41	26	88
Other Areas:																							
CVET	417	0	417	0	76	174	79	21	13	0	0	54	32	29	2	268	3	83	175	246	53	35	83
Home & Comm. Service Worker	180	160	20	0	25	95	28	5	1	0	0	26	25	13	1	114	0	27	75	115	29	8	27
Pre-Voc. Orientation	127	43	84	0	2	12	6	2	0	86	0	19	4	37	0	66	1	19	16	108	22	5	19

APPENDIX C

1969-70 FOLLOWUP DATA—GRADUATES

[In percent]

Division and program	Available for placement	Employed related	Employed other	Unemployed	Continued education	Armed Forces	Not in labor force	Unknown
Vocational agriculture (total enrollment: Secondary= 4,073; post-secondary=0):								
Production	34	73	22	5	54	9	1	3
Mechanics	32	71	25	4	55	5	1	7
VAOT	34	77	13	10	51	7	1	6
Total agriculture	33	73	22	5	54	8	1	4
Distributive education (total enrollment: Secondary=1,200; post-secondary=0):								
Advertising services	47	94	6	0	33	3	11	6
Apparel and accessories	27	79	21	0	50	1	14	7
Automotive	52	74	14	11	33	9	3	3
Finance and credit	31	88	13	0	54	4	12	0
Floristry	41	75	15	10	42	8	4	4
Food distribution	39	85	15	0	38	6	16	6
General merchandising	39	87	10	3	45	2	12	1
Hardware, etc	60	78	22	0	33	7	0	0
Home furnishings	26	86	0	14	56	4	7	7
Hotel and lodging	58	100	0	0	17	8	17	0
Insurance	43	88	8	4	41	10	2	3
International trade	30	89	11	0	47	3	10	10
Personal service	42	60	40	0	50	8	0	0
Real estate	37	86	12	2	43	4	9	6
Recreation and tourism	23	100	0	0	62	0	15	0
Transportation	29	100	0	0	57	0	7	7
Distribution education, other	37	78	17	6	43	6	8	9
Total Distribution education	39	84	12	4	43	6	8	5
Health occupations (total enrollment: Secondary=216; post-secondary=376):								
AD nurse	21	100	0	0	0	0	0	79
LP nurse	93	95	4	2	3	0	2	2
Inhalation therapy	90	100	0	0	10	0	0	0
Medical assistant	67	83	8	10	28	0	3	2
Health services occupations	26	50	30	20	36	0	26	13
Total health	79	90	6	4	11	0	5	6
Home economics (total enrollment: Secondary=411; post-secondary=0):								
Child care	24	75	0	25	59	0	18	0
Clothing management	14	33	67	0	73	0	9	5
Food management	13	0	100	0	27	13	33	13
Total Health economics	22	31	62	8	52	3	18	5

Business and office (total enrollment: Secondary=1,423; post-secondary=0):								
Accounting	65	100	0	0	15	5	15	0
Unit records	40	67	25	8	45	3	10	2
Office clerk	46	76	13	11	39	1	14	1
Stenographer	47	79	11	10	38	0	12	3
Total Business and office	45	76	14	10	39	1	13	2
Technical (total enrollment: Secondary=200; post-secondary=427):								
Chemical technology	23	100	0	0	64	14	0	0
Electronics	49	90	8	2	36	6	0	9
Mechanical technology	40	100	0	0	30	10	0	20
Metals technology	17	100	0	0	83	0	0	0
Drafting and design	40	77	18	5	40	11	1	7
Computer services	45	75	22	3	37	3	4	11
Total Technical	44	83	14	3	39	7	1	7
Trade and industrial (total enrollment: Secondary=3,197; post-secondary=0):								
Air conditioning and refrigeration	72	81	19	0	18	3	2	5
Appliance repair	38	100	0	0	23	38	0	0
Auto body	54	67	28	5	25	15	3	3
Auto mechanics	57	73	24	3	24	13	0	6
Auto parts and service station	55	67	33	0	32	9	0	5
Aircraft mechanics	25	67	33	0	42	17	0	17
Commercial art	38	76	19	5	47	5	2	7
Commercial photography	6	100	0	0	71	6	6	12
Carpentry	50	62	34	3	27	12	1	10
Electricity	34	58	42	0	20	31	0	14
Diesel mechanics	60	78	11	11	23	13	0	3
Electronics	47	82	18	0	41	12	0	0
Radio and TV repair	28	40	60	0	56	11	6	0
Graphic arts	61	67	23	10	23	6	10	0
Machine shop	58	83	10	8	26	10	0	6
Drafting	32	65	32	3	51	11	1	5
Sheet metal	62	100	0	0	38	0	0	0
Welding	60	83	10	7	14	17	0	8
Cosmetology	67	85	12	3	12	0	13	8
Quantity foods	47	85	4	11	19	7	22	5
Upholstery	46	44	50	6	26	20	3	6
Cabinetmaking	39	75	25	0	49	10	0	2
Other, trade and industrial	38	82	11	7	35	7	10	10
Total, trade and industrial	51	75	21	4	28	10	4	7

RESEARCH, PLANNING, AND EVALUATION 1968 TO 1971

The Vocational Research Coordinating Unit was established in Oklahoma in 1965 for the purpose of improving vocational and technical education through research and development activities. Initially, its charge was to coordinate, stimulate, develop and conduct, and disseminate vocational research projects in Oklahoma. This charge was broadened to increase emphasis on developmental activities in 1968, and in 1970, the RCU was reorganized as the Division of Research, Planning, and Evaluation in the State Department of Vocational and Technical Education. Federal support for activities of the Division since 1968 has been authorized under Public Law 90-576, the "Vocational Education Amendments of 1968."

The purpose of this paper is to briefly delineate activities of the Division from 1968 to the present, and to reflect on the impact of these activities on vocational and technical education in Oklahoma. Activities in the report are organized according to the Unit where major responsibility for the project rests. In addition, a final section will describe some major contributions to Oklahoma of research projects conducted in other states.

DATA ANALYSIS

Development of an Occupational Training Information System (OTIS) was initiated in August, 1968. Major objectives of the development centered upon the need for manpower demand and manpower supply information needed by administrators of vocational and technical education in adjusting the State Plan and local plans to meet needs of industry and students. The effects of this project are seen in the systematic, continuous, and detailed information system which is operational in the Division. A most important characteristic of OTIS is the close continuous cooperation among the several State agencies in Oklahoma with interests and responsibilities in manpower planning. A second characteristic of OTIS which serves as an evaluative measure of its worth and credibility is the extensive and ever-expanding use of data compiled by the system. Plans are in some stage of development in as many as ten other states to establish a similar system in those states.

Specifically, OTIS compiles a comprehensive data bank of manpower needs at the vocational-technical level of business, industry, and government and interfaces those needs with manpower supply as indicated by public and private vocational-technical training programs. An adjunct to the original project, but now a part of OTIS, is the Student Accounting System which was developed by the Division to obtain data on students and follow-up information on former students.

The Data Analysis Unit has also developed a "teacher OTIS" for the purpose of obtaining supply and demand information relating to personnel training and personnel needs supportive of the vocational programs.

Many computer prints-out have been prepared to fill requests for specific information not found in the cycle reports of OTIS. Requests have come primarily from staff of the State Department and from Area Vocational-Technical Center directors. Additional reports have been prepared for other state agencies, public school administrators, and college or university personnel. Enrollment and Follow-up Reports to the U.S. Office of Education are also generated from the system.

EVALUATION

The Research Coordinating Unit became involved in evaluation when, in 1967, a systematic state-wide student follow-up system was devised. The student follow-up was refined and automated in 1968 and has become a sub-system of OTIS. It now consists of a one-, three-, and five-year follow-up of all vocational and technical graduates. A research study, comparing teacher responses and graduate responses to follow-up instruments was completed in 1970.

The team evaluation instrument was developed by RCU staff in 1969. The RCU director coordinated survey teams in the use of this instrument for any school whose administrator requested an evaluation by the State Department. Reports of the evaluations were prepared by the RCU director.

When, in 1970, the RCU was reorganized into the Division of Research, Planning, and Evaluation, a research study was designed to identify variables which discriminate between more successful and less successful programs. New team evaluation instruments were developed and programs in selected schools have been evaluated for the study. Initial analysis of the data obtained in the evaluation is now being made.

The study will continue on a larger scale when twenty percent of all secondary vocational programs are evaluated in the 1971–1972 school year. The selection of teams, selection of programs, and time schedule is completed whereby approximately 350 programs will be evaluated.

The Evaluation Unit acts as liaison between the Division and the State Advisory Council to furnish data from OTIS or collect data not in OTIS which is needed for the State Advisory Council's evaluation.

PLANNING

A major planning research was conducted in 1968 to identify the most appropriate area vocational-technical districts and most feasible school sites to make area school training available to all students in Oklahoma. Based on criteria selected by the State Director of Vocational and Technical Education, a linear program was developed to delineate district boundaries .The study was revised in 1970 to account for newly-formed districts, and a report was made to the State Legislature for appropriate use.

The Planning Unit was responsible for coordinating development of the Fiscal 1971 State Plan and has been responsible for the development of the 1972 State Plan. Research studies have been completed to develop a reimbursement policy, and a cost benefit study is continuing to obtain appropriate cost data for use in planning programs.

The Planning Unit has also had major responsibilities to coordinate completion of a long-range master plan for vocational-technical educatin in Oklahoma. Studies in "Management By Objectives" techniques, and workshops to train vocational educators in "Management By Objectives" have been important adjunct activities to development of the master plan.

Staff of the Planning Unit have also completed development of an annual local application and have held numerous work sessions to train local education agency administrators in use of the local application to develop their local programs.

RESEARCH COORDINATING UNIT

Staff of the Research Coordinating Unit have been actively engaged in most of the "inhouse" research and development activities listed previously. The original charge to coordinate, conduct, stimulate, and disseminate research projects requires a wide variety of activities.

In the coordination of research, the RCU director acts as the liaison between the State Director of Vocational and Technical Education and contract researchers. Fifty two "mini-grants" have been conducted in the past three years or are in the process at the present time. Ten research projects are presently in operation. To enhance coordination interstate, the RCU director reports to the U.S. Office quarterly on activities of the Division and distributes project reports to the ERIC Vocational-Technical Clearinghouse and RCU's in other states. The Division Head is a member of the Ohio State Center Advisory Council and the RCU Director is a member of the Southwide Research Coordinating Council which acts as an advisory group to the North Carolina Center.

The RCU has published a research newsletter which is distributed to all vocational educators in the state. An RCU/SDI flier which lists abstracts of research and research-related materials from ERIC is distributed to specific vocational education audience groups. The flier abstracts act as an alerting system for educators. Microfiche copies of related documents are supplied in response to request for further information regarding an abstract. The Oklahoma State Department, through the RCU, cooperated with the Ohio State Center and seven other states in a research study recently to determine user characteristics and user requirements for research information. The division is also responsible for the shelving system used by the State Department Library and regularly channels research and research-related documents to the library as well as maintaining a microfiche collection in the library. An important aspect of research visibility is publication of periodicals.

The division has supported a number of research assistants and graduate students in their research studies. While some studies obtained results that have greater impact on vocational education than others, many of them were directed at problems identified through the State Department staff. One such study resulted in the development of a simulation game for teaching consumer credit to home economics students. A second study, while not directed at problems identified at the State Department has had almost immediate effect. The study indicated the acceptability of liver additions to meat dishes for the purpose of increasing dietary iron. The study was completed in the summer of 1970, and concepts disclosed in the study were taught in adult Food Service Supervisor classes offered through the State Department of Education School Lunch Division in 1971.

A number of workshop exemplary program activities have been included in the Division's effort to disseminate research. In 1969, the RCU conducted a National Conference on Research for the purpose of developing guidelines for research compatible with the intent of the "Vocational Education Amendments of 1968." Workshops for over 600 teachers of the disadvantaged were held during the summer of 1970. Division staff researched the literature to support activities of the Tulsa exemplary project which is funded from the 50% of exemplary funds administered by the Commissioner of Education. The Division Head directed a U.S. Office funded institute, "Teaching Less-Advantaged Adults in Metropolitan Areas." The Division is also represented in development of priorities for EPDA teacher training programs. Identification of specific teachers for specialized in-service training is also a responsibility of the Division.

The Division Head has directed a U.S. Office requested project to develop guidelines for career development in health occupations. The project is in final stages of completion. Research projects on the use of microfiche, RCU/SDI fliers, and other evaluative studies of Division operations are constantly in process.

RESEARCH OUTSIDE OKLAHOMA

It would be erroneous to assume that Oklahoma Vocational and Technical Education is effected by only state and local research. The listing of four activities currently in process in Oklahoma will exemplify the importance of research from other states.

A guidance technique using data aperture cards to disseminate occupational information to students is being established in over thirty schools in Oklahoma. Called VIEW, (Vital Information For Education and Work), the technique was developed and tested in a project conducted in San Diego County.

A second example is the use of research in evaluation, particularly that of Byrum in North Carolina, in the development of evaluation instruments. The works of Starr and Moss have affected our design of research in evaluation.

The Ohio State Center has developed numerous research and synthesis reports, as well as other reports useful to the practitioner. Their publications on curriculum have impacted on the development of the model used by our Curriculum and Instructional Materials Center.

The researches by Mager, Popham, and others have been used extensively in developing performance objectives for curriculum being developed in the Curriculum and Instructional Materials Center.

All in all, research and development activities have brought a "new look" to many areas of vocational and technical education in Oklahoma. Although hard evaluative data is not available as such, the "new look" can be assumed to include many improved practices because of the scientific approach to change which is synonymous with research.

OREGON

State Director—Leonard Kunzman

OREGON BOARD OF EDUCATION

SALEM, OREG., *June 10, 1971.*

Hon. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education, Rayburn House Office Building, Washington, D.C.

DEAR CONGRESSMAN PUCINSKI: We are pleased to provide the enclosed information and materials on vocational education programs in Oregon in response to your request of May 19, 1971.

As requested, information is provided in the areas of research, postsecondary education, education for the handicapped and disadvantaged, methods of intra-state distribution of funds, and contributions of the State Advisory Council for Vocational Education.

In each case, pertinent and current information is presented in a brief one or two page form, with additional supplemental materials for each area as seems appropriate to the needs of your subcommittee. If additional information or clarification in any area would be helpful, please do not hesitate to contact this office.

Two specific areas are noted here for clarification. In the case of information on the research programs, briefs of the specific projects funded are not available at this time. This information will be forwarded as soon as possible. Regarding the funding area, two procedures are utilized in Oregon: (1) For reimbursing operating costs of regular vocational programs, reimbursement is made on a per student basis via a reimbursement formula, and; (2) All categorical funds are funded on a project basis. The reimbursement formula is explained in detail on the attached pages on this subject.

We in Oregon sincerely appreciate your continuing efforts in behalf of vocational education. We know that great strides have been made in the past five years as a direct result of your leadership and support. We trust the enclosed information will be helpful to you and your subcommittee as you continue in these efforts to effect legislation necessary to assist us in providing quality vocational education programs for all youth and adults.

Cordially,

LEONARD E. KUNZMAN, *State Director, Vocational Education.*

Enclosures.

APPLIED RESEARCH IN CAREER EDUCATION, OREGON

In accordance with the Oregon State Plan for Vocational Education, 1970–71, vocational education research is established as an integral dimension of the program development and implementation priorities of the Oregon Board of Education. The research section is located in the Career Education Division, Oregon Board of Education.

Priorities for applied research in career education were established for fiscal year 1971 with the advice of a representative state-wide ad hoc advisory committee. Approximately 70 per cent of available funds (Part C) are disbursed on a project proposal basis. Priorities for such projects for the current year are for proposals effecting program design and staff development in:

1. Career awareness for elementary learners, grades K–6
2. Career exploration for junior high and early secondary learners, grades 7–10
3. Design of in-service education programs for counselor orientation and experiences in career education
4. Program designs affecting articulation between curricular areas and/or levels
5. Pre-service teacher preparation programs for prospective teachers in all areas (elementary, junior high, secondary, post-secondary) which emphasize career education

A total of eleven projects have been approved for funding under the above priorities. Over fifty per cent of funds so allocated are under priorities 1 and 2, above.

Additional applied research priorities are established for activities including information collection and dissemination, evaluation of existing vocational programs of all types, and collection of enrollment and follow-up data on all eleventh and twelfth grade students enrolled in approved secondary vocational programs in the state.

The effect of research funds for vocational education in Oregon has never been more significant than in the current year. The prospect for development of model programs with high value for replication statewide is very positive. The continuation of funding in this critical area is essential if new and innovative ideas are to be developed as a means of intervening for the improvement of instruction in vocational programs for all learners.

APPLIED RESEARCH PRIORITIES FOR CURRENT YEAR

Priorities have been established for career education applied research projects for the current year. These priorities were developed in cooperation with an Ad Hoc Advisory Committee for Applied Research. Projects may extend through the 1971–72 year.

A fundamental concept for applied research in career education projected by the Oregon Board staff and the Ad Hoc Advisory Committee is:

> Applied research efforts should produce live, working models which have high potential for replication and adaptation in numerous settings across the State of Oregon. Such projects should relate wherever possible to other efforts to improve career education which are supported from other funds.

The highest priority will be given to proposals effecting program design and staff development in the following areas:

Occupational Awareness for elementary learners, grades K–6.
Occupational Exploration for junior high and early secondary learners, grades 7–10.

Design of in-service education programs for:

Counselor orientation and experiences in career education
Part-time occupational instructors

Program designs affecting articulation between curricular areas and/or levels

Pre-service teacher preparation as related to awareness and exploratory programs or to designs of in-service programs

The foregoing specific areas are not listed in priority order. The chief concern of the Oregon Board of Education and of the Ad Hoc Advisory Committee is that priority and emphasis be placed upon the design of programs and practices which can enhance achievement of the State's goals for career education. Each school, district, community college or other agency submitting ideas for research proposals is encouraged to carefully assess its own priority needs as they relate to this emphasis. It is important that the research effort produce useful information, materials, strategies and instructional practices which meet local needs and have a potential for usefulness in other situations throughout the state.

Post-Secondary Programs in Oregon

OREGON'S COMMUNITY COLLEGES

The following is a brief description of data relating to Oregon's community colleges for the period 1967–68 through 1970–71.

By 1968 twelve community colleges were in operation in Oregon. The establishment of the Oregon community college system was made possible by passage of community college legislation in 1961. In 1971 Rogue Community College became the thirteenth community college in the state.

Programs at the community college level in Oregon can be grouped into the following categories and for the years noted have been reported in the state's annual descriptive reports.

Mechanical—Includes such programs as industrial mechanics, aero airframe mechanics, office machine repair, auto body and fender repair, etc.

General Clerical—Includes such programs as data processing, clerk-typist, key punch operation, etc.

Secretarial—Includes such programs as legal secretary, medical secretary, etc.

Marketing—Includes such programs as mid-management, merchandising, real estate, etc.

Bookkeeping-Accounting—Includes such programs as business machines technology, accounting, etc.

Bookkeeping-Accounting—Includes such programs as business machines technology, accounting, etc.

Agriculture—Includes such programs as advanced farm management, forestry technology, livestock technology, ornamental horticulture, etc.

Home Economics—Includes such programs as child care, food service, institution management, etc.

Building Construction—Includes such programs as building materials management, drafting technology, highway engineering, etc.

Wood Products—Includes such programs as forest products technology, wood, paper and building material technician.

Metal Working—Includes such programs as machine shop technology, metallurgy, welding, etc.

Health Occupations—Includes such programs as dental assistant, inhalation therapy technician, practical nursing, etc.

Electrical—Includes such programs as aviation electronics, electronic engineering technology, instrumentation and control technology, etc.

Other—Includes new law enforcement, fisheries technology, fire protection technology, etc.[1]

Many of these program areas represent two-year curriculums with the community college offering an Associate in Science degree for successful completion. Individual courses or options within these curriculums frequently provide the basis for adult courses designed to restrain and upgrade employed persons.

The following table lists the occupational categories and the number of programs being offered within the program areas. The data shows a significant increase in the total number of programs offered.

TABLE 1.—OREGON'S COMMUNITY COLLEGE—OCCUPATIONAL PROGRAM AREAS

Program area	Number of programs			
	1968	1969	1970	1971
Mechanical	43	48	46	46
General clerical	36	37	52	54
Secretarial	24	24	30	30
Basic marketing	32	36	41	42
Bookkeeping accounting	20	16	19	20
Agriculture	21	21	27	28
Food service (expanded to home economics in 1969)	3	15	17	20
Building construction	31	36	35	36
Wood products	3	3	3	3
Metalworking	21	21	19	19
Health occupation	28	25	38	42
Electrical	23	23	30	32
Other [1]	29	37	53	60
Total	314	342	410	432

[1] Marine technology, building maintenance, flight technology, commercial flight training, law enforcement, etc.

Occupational enrollment data is shown in Table 2. Due to a change in the reporting of community college enrollment between, 1968–69 and 1969–70, the figures are not absolutely comparable. Occupational enrollment continues to represent slightly less than half of total enrollment.

TABLE 2.—OREGON'S COMMUNITY COLLEGES, OCCUPATIONAL ENROLLMENT DATA

1968		1969		1970			[1] 1971		
Preparatory	Supplemental	Preparatory	Supplemental	Preparatory	Adult	Appre.	Preparatory	Adult	Appre.
11,550	18,965	21,113	21,113	15,772	23,603	2,502	18,580	29,808	2,518

[1] Estimated enrollment. (Occupational enrollment represents approximately 45 percent of total community college enrollment.)

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[1] This category of program area is being further refined. It will eventually be further sub-divided.

The number of instructors employed to teach in the various occupational areas has shown a steady growth. Table 3 depicts this data. The 1970–71 figure represents a more accurate distinction between regular instructors and those who concentrate on adult occupational courses.

TABLE 3.—OREGON'S COMMUNITY COLLEGES, OCCUPATIONAL INSTRUCTOR DATA

Year	Preparatory	Supplemental	Year	Preparatory	Adul
1968	662	784	1970	1,176	865
1969	763	782	1971	831	1,048

Education for the Disadvantaged and Handicapped—Oregon

The Oregon Board of Education has disbursed in excess of $2,000,000 to secondary schools and community colleges in the past two years to assist in meeting the vocational needs of the disadvantaged and handicapped. The 100% handicapped, 15% disadvantaged set-asides and the 102.b. Special Needs monies are distributed on a project proposal basis, under the following priority system:

1. Modification of regular on-going vocational programs to enable the students to succeed in, or obtain maximum benefit from, the program.
2. Establishment of special vocational programs to meet the specific needs of this group where the severity of the impairment is such that success is impossible or improbable in a regular vocational program.
3. Supportive and/or counseling programs to attract or hold special needs students to vocational programs.

Additional payments to schools in excess of the above set-aside and categorical funds are made for disadvantaged and handicapped individuals enrolled in regular programs based on the excess cost of maintaining these individuals in the program.

Projects funded for the period 1969–1971 in the disadvantaged and handicapped area are as follows:

Fiscal year	Secondary schools	Community colleges	Total
1969–70	39	13	52
1970–71	23	23	46

Explanation of Secondary Reimbursement Formula as Outlined in the 1970 State Plan for Vocational Education

The 1970 Oregon State Plan for Vocational Education, Section 3.0, pages 35–70, explains in detail how the Federal funds are allocated, meeting the requirements of the 1963 Vocational Act. The following is a brief summary of the secondary reimbursement formula.

The State Board must consider manpower needs, job opportunities, differences in vocational education needs, relative ability of educational agencies to pay and relative costs of programs in allocating the Federal funds to local educational agencies. The amount of reimbursement each district is to receive is determined as follows:

MANPOWER NEEDS AND JOB OPPORTUNITIES

All districts' applications must show evidence that the vocational programs they plan to operate will meet current and projected manpower needs and job opportunities to be eligible for reimbursement. Secondary vocational programs based on statewide developed cluster curriculums will meet this requirement. Other clusters could be approved providing the manpower data is not over-lapping and shows evidence of additional need.

VOCATIONAL EDUCATION NEEDS

The number of students enrolled in approved vocational programs is taken as the primary indication of need. In addition, districts will receive a student needs grant, based on the number of disadvantaged and handicapped students enrolled in approved vocational education programs. Five percent of the funds were allocated in 1970 to serve the needs of this group to cover the added costs of vocational guidance and counseling, special teaching assistance and instructional materials.

RELATIVE COSTS OF PROGRAMS

The basic excess costs grant allocated to each secondary school district is determined by using each district's average cost per ADM (average daily membership) and using a ratio of their average class size of approved vocational programs versus all education programs to determine the excess costs for vocational education students. Available funds are pro-rated to the districts, based on their share of the statewide enrollment.

This is based on the assumption that per pupil costs may be directly related to class size since approximately 70 percent of the programs operating costs is attributed to instructor salaries and a significant part of the other costs are the same, regardless of the number of students involved.

The basic excess costs grant is allocated to community colleges on a "Lite-Bill" formula. For 1970, each community college received $127/F.T.E. for the first 200 F.T.E. and $76/F.T.E. for all in excess of 200. This formula is based on the assumption that districts with small enrollments are more expensive to operate.

RELATIVE ABILITY TO PROVIDE RESOURCES

A minimum of 15 percent of the secondary funds are allocated to eligible secondary school districts through supplementary grants, varying with the districts relative ability to pay. The amount of each district's payment will be based on its relative ability to support a basic level of expenditure for vocational programs as indicated by the district's true cash value per secondary average daily membership and on its relative expenditure per vocational student. The method to be used in distributing this grant is in accord with the practices used in the state's equalization program for Basic School Support.

No less than 10 percent of the community college funds are allocated on the basis of their relative true cash value of taxable property.

GOVERNOR'S ADVISORY COUNCIL FOR VOCATIONAL EDUCATION—OREGON

The present Governor's Advisory Council for Vocational Education was created by Executive Order of Governor Tom McCall, dated February 18, 1970.

The Advisory Council has been instrumental in providing direction for program improvement and development through evaluation of the statewide program of vocational education, including teacher education.

Perhaps most important among the recommendations of the Advisory Council, based upon the 1970 annual evaluation, were those addressed to improvement of teacher education programs in the State. The Council also reviews and makes recommendations on the Annual State Plan for Vocational Education, and has contributed significantly to assuring that this document is both comprehensive and flexible, and is addressed to meeting the needs of learners at all program levels. The attached "Status of Implementation of Recommendations" statement prepared by the Oregon Board of Education staff points out several specific effects of the Advisory Council's recommendations. In addition, the complete First Annual (1970) Evaluation Report of the Governor's Advisory Council is included.

The Oregon Board of Education is in full support of the concept and role of the state Advisory Council for Vocational Education. Continuation of this kind of involvement of a broad cross-section of the business, industry, labor and educational communities in providing advice and support is considered essential to the development and implementation of comprehensive vocational programs for all youth and adults in Oregon.

STATUS OF IMPLEMENTATION OF THE RECOMMENDATIONS OF THE GOVERNOR'S ADVISORY COUNCIL FOR VOCATIONAL EDUCATION BY THE OREGON BOARD OF EDUCATION

The Governor's Advisory Council for Vocational Education, in its Annual Evaluation Report dated October, 1970, made 29 specific recommendations for action in career education. These recommendations were summarized in seven general areas in which a need for Oregon Board Leadership is indicated.

The following is an outline of some of the more important activities, plans and limitations pertinent to each of the areas of needed leadership.

1. *To improve the attitudes of many kinds of people toward career education.*

a. Current activities include inservice programs for local district personnel; development and publication of state position papers; staff presentations to local boards, community groups and organizations; publication of a limited number of brochures and other publications; television spot announcements and involvement of key individuals in developmental projects and activities.

b. It is planned to expand the development and dissemination of descriptive and explanatory materials aimed at the several kinds of people concerned with and affected by career education and to intensify efforts to provide appropriate inservice programs. Encouragement will be given to local district and community college activities designed to familiarize their communities with the goals and characteristics of career education programs and to actively involve individuals and groups in program planning and development.

c. Primary limitations to effective action are the lack of staff time that can be devoted to planning and carrying out these kinds of activities; the complexities of developing effective means of attitude change and the expense of carrying out widespread informational programs.

2 *To cause the occurrence of major changes for the improvements of counselor training and counseling at all levels.*

a. The Oregon plan of career education involves new concepts in the development of career-choice decisions and depends on more than guidance and counseling. Particularly, programs of developing career awareness in the elementary grades and occupational exploration in the middle grades must be considered along with the guidance and counseling functions at all levels.

Current activities in this broad area include a number of programs developed and funded under the Exemplary program; a 50–60% increase in programs in "Self Understanding Through Occupational Exploration" (SUTOE); three workshops to prepare additional teachers and counselors for SUTOE programs; inclusion of counselors in career education inservice programs; and joint planning by the career education and student services staffs.

b. Plans are underway to establish a pilot inservice program for counselors under the Education Personnel Development Act (EPDA) program; a small research project to help identify the changing role of the counselor in career guidance; additional developmental and exemplary projects in awareness, exploration and guidance; contracted services to assist local districts in planning counseling and guidance and guidance programs; and the use of interns to assist in development of program guidelines and recommended practices.

c. Primary limitation is the lack of funds that are essential to a strong emphasis on implementing and developing approaches and programs in the schools and colleges, to effective planning and development of improved counselor preparatory programs, and to establish more comprehensive inservice offerings.

3. *To precipitate major change for improvement of career teacher education.*

a. Several activities are underway to build a more effective vocational personnel development program. These include the drawing up of a state plan for personnel development; establishment of an advisory committee; development of a competence-based, individualized curriculum at Oregon State University; pilot programs for recruitment and training of teachers from business and industry under EPDA; development of associate degree programs in vocational education to be offered by community colleges and articulated with baccalaureate programs; inservice programs to train teachers in new concepts and materials; study of personnel needs in relation to existing teacher preparation programs; and planning a health occupations teacher preparation program.

b. Additional activities planned with present resources involve research projects for better orientation of all teachers to the comprehensive career education program; establishment of a health occupations teacher education program; implementation and further development of associate degree teacher education in the community colleges and continuation of EPDA programs.

c. An accelerated and more effective attack on the personnel development problems will require a considerable increase in available funds and the recruitment or training of persons qualified to work effectively in personnel development.

4. *To achieve major increases in the financing of career education.*

a. Increased financing is an extremely important key to significant advances in a statewide program of career education. Continuous efforts are made by the staff to secure better legislation and increased funds at the Federal and state levels. Personal and written contacts with legislators and other key persons and groups are used. Local district personnel are encouraged to examine their priorities with a view toward increased reallocation of available funds to career education programs.

b. Current plans call for continuation of the present level of activities with emphasis on increasing local committment.

5. *To improve two-way communication between the business and industrial communities and the schools.*

a. Activities in these areas include emphasizing use of occupational advisory committees and career curriculum advisory committees; involvement of persons from the various communities in the development of local district long-range plans; and the involvement of available persons in program planning, operation and evaluation.

b. Continued efforts will be made in all of the above areas.

6. *To improve curricula for career education at all levels.*

a. Consistent efforts are underway to establish curricula and curriculum materials that will permit entry to and exit from programs at any time. Activities include a study to establish guidelines and criteria for curriculum development based on performance criteria and evaluation; curriculum development projects in electronics, mechanics, office education, and drafting; and search of research and development to identify and evaluate materials and programs from other states.

b. Planned are a comprehensive curriculum development proposal; workshops to train teachers to select, use and develop new materials; projects for local personnel to develop curriculum; and contracted services for coordination of curriculum development efforts.

c. The needs for curriculum materials for all phases of career education demand massive efforts that are far beyond the present resources.

7. *To get public schools to formally assume responsibility to develop employability in every student and to work with appropriate agencies to bring about placement of every student leaving the school system.*

a. Key factors in achieving this goal are the establishment of truly comprehensive career education programs, including guidance and counseling, and improved articulation between high school and post-high-school programs. Some typical activities underway are the requirement for local districts to develop long-range plans for career education providing staff assistance and materials to aid local districts in planning career education, establishing regional coordinators, articulation studies under EPDA, and coordination efforts under the agreement with the state employment service.

b. Planned activities include increased emphasis on development of comprehensive plans and programs; additional articulation studies; and initiation of exemplary practices.

PENNSYLVANIA

State Director—Dr. John W. Struck

DEPARTMENT OF PUBLIC INSTRUCTION
Harrisburg, Pa., June 23, 1971.

HON. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education,
U.S. House of Representatives, Washington, D.C.

DEAR MR. PUCINSKI: In response to your request, the Pennsylvania Department of Education has assembled information concerning our experiences relative to the Vocational Education Amendments of 1968 in various areas of vocational education. You indicated your interest in learning of our efforts in research, post-secondary education, education for the handicapped and the disadvantaged, methods of intrastate distribution of funds, and the contributions of our State Advisory Council. We have devoted a great deal of attention to these aspects of vocational education in Pennsylvania and are pleased to have the opportunity to share our experiences with you.

As an introduction, an overview of our fiscal plans for Part B funds will provide some idea of our recognition of needs in these particular areas.

Budget for Federal funds	1969–70	1970–71
Secondary	$1,796,089	$2,642,064
Post secondary	2,562,113	2,889,466
Disadvantaged	2,562,113	3,062,113
Handicapped	1,708,076	2,208,076
Construction of AVTS	4,328,000	2,520,000
Adult	571,752	771,752
Ancillary services	3,552,613	3,777,789
Total part B funds	17,080,756	17,871,260

While this budget summary includes our entire Part B budget, it conveys our attention to the specific areas under concern and our desire to increase educational services to these areas. Our projection of Budgetary need for Part B funds is as follows:

Fiscal year—	
1971–72	17,902,689
1972–73	18,761,257
1973–74	20,175,150
1974–75	21,373,395

Our intention is to provide continued support for the growth and expansion of programs that meet the purposes of the Amendments of 1968.

The following recommendations are identified with the attainment of specific goals in regards to vocational education in Pennsylvania are based upon observations and findings of the recent council evaluation of the program.

GOAL NO. 1 AND RECOMMENDATION

To increase the percentage of secondary students served by vocational education from approximately 20% to 50% in the 1970's. This will necessitate construction of new and the expansion of facilities at both the area vocational technical school and the comprehensive school as well as the use of mobile units, educational television, cooperative (on-the-job) training stations with business and industry.

GOAL NO. 2 AND RECOMMENDATION

Bring secondary vocational education program enrollments and completions into closer relationship with current and projected Labor Market demands. This could be accomplished through intensifying promotional efforts for program expansions in the various program areas. Special emphasis to be given to this health occupation area.

GOAL NO. 3 AND RECOMMENDATION

Increase the efficiency of utilization of secondary education training stations. This goal will be accomplished by instituting a more flexible admission and exit policy. There will be need for financial assistance to add vocational counselors and placement directors in both area vocational technical schools and participating high schools.

GOAL NO. 4 AND RECOMMENDATION

Continue to increase the number of post-secondary students in occupational education programs. This will be accomplished through the articulation of the occupational, vocational and technical education offerings by the area vocational technical schools and the community colleges. Additional recommendations include: the development of a 13th and 14th year post-secondary occupational vocational and technical education offerings and the utilization of training services under contract with private schools.

GOAL NO. 5 AND RECOMMENDATION

Increase the number of adults served by vocational-technical programs. This is to be accomplished through promotional efforts to motivate employed, under employed and unemployed people. To utilize the occupational education offerings available. Funds should be provided for additional counseling and follow-up services for adults.

GOAL NO. 6 AND RECOMMENDATION

Increase the number of handicapped and disadvantaged persons to be served with emphasis on the younger high school dropout. This is to be accomplished through the development of new short term curriculas of lesser skilled occupational training programs utilizing public and private facilities.

GOAL NO. 7 AND RECOMMENDATION

Establish a more adequate, relevant pre-service and in-service teacher training and counselor training service for the many new inexperienced vocational teachers and counselors. This is to be accomplished through a re-examination of existing vocational teacher training programs in the cooperating higher education institutions.

GOAL NO. 8 AND RECOMMENDATION

Improvement of certain general administrative practices. Recommended as follows:

1. Re-examine reporting forms, guidelines and instructions to local districts with a view toward giving more help to local administrators.
2. Re-examine financial aid policies for all programs especially for adult and out of school youth with a view toward increasing that aid and thus stimulate greater program expansion.
3. Develop a vigorous continuous vocational education public information program.
4. Work closely with Research Coordinating Units in this perfection and use of the planning information system, including greater use of the updated labor market supply and demand data.
5. Urge more timely action in respect to Federal and State legislated appropriations to permit more effective planning of vocational educational programs.

I will be pleased to provide further information if needed. Thank you for the opportunity to be of service and to tell you something of what Pennsylvania is doing in vocational education.

Sincerely yours,

JOHN W. STRUCK, *State Director of Vocational Education.*

RESEARCH

The Pennsylvania Research Coordinating Unit (RCU) is one of four divisions within the Bureau of Educational Research in the Department of Education. One of the major objectives of the RCU is to coordinate occupational education research conducted within Pennsylvania. With its close administrative liaison to the Bureau of Vocational, Technical and Continuing Education, the RCU has provided valuable assistance in the review and approval of research projects funded by vocational education.

During 1969–70, 50 research proposals were received and reviewed by the RCU staff and a reviewing committee. Subsequently, 27 research and research-related activities were funded by the bureau to be conducted by local school districts, county office, colleges and universities, and individuals who have received mini-grants for masters' or doctoral studies. The monitoring of these approvals is a major responsibility of the Research Coordinating Unit.

PLANNING

Comprehensive long-range planning has been emphasized in the Commonwealth of Pennsylvania.

A publication has been prepared to assist local education agencies in the use of manpower supply and demand information.

DISTRIBUTION OF FUNDS

In the spring of 1970 a committee of the State Advisory Council for Vocational Education was appointed to study problems regarding the use and disbursement of Federal vocational education funds. This committee provided recommendations to the State Board for Vocational Education which revised existing funding policies at its meeting in September, 1970.

To be eligible for 1970–71 Federal vocational education funds, local educational agencies within their respective area vocational-technical school attendance areas were required to join together and cooperatively develop one educational plan for meeting the vocational needs of the Bureau of Vocational, Technical and Continuing Education of the area board became the responsible coordinating agent of the planning unit and it was his responsibility to arrange meetings and coordinate individual plans from the local educational agencies into one master educational plan.

In instances where there was no existing area vocational-technical board, local educational agencies in a county cooperatively developed one educational plan for meeting the vocational needs of youth and adults. They also had the option of joining with other local educational agencies in adjoining counties for such purposes. These planning activities were coordinated by the regional representatives of the Bureau of Vocational, Technical and Continuing Education of the Department of Education.

Plans were submitted through the regional offices of our bureau on the basis of funding allotments determined by a formula approved in the State Plan for Vocational Education. Applications were subsequently evaluated by bureau staff and upon approval, reimbursement would be made to the local educational agency identified by the planning unit to operate the program.

As with any new technique, some details will require adjustment but the basic system is sound and provides realistic opportunities for local school officials to develop programs and control the direction of expenditures in accordance with the needs of the youth and adults in their communities.

STATE ADVISORY COUNCIL

The State Advisory Council on Vocational Education has been very affective in Pennsylvania and has been instrumental in assisting the State Board in implementing the Vocational Education Act as amended in 1968.

RHODE ISLAND

State Director—Thomas H. Sandham, Jr.

PROGRESS IN RHODE ISLAND UNDER THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

Rhode Islanders, during the past five years, have been witness to several innovative yet realistic changes occurring in the State's vocational-technical education program. Five new occupational education centers have been built and are operating at strategic locations throughout the State, while two additional facilities, in Lincoln and Warwick, are now under construction and scheduled to open in September of 1971 and 1972, respectively. Total enrollment in vocational education programs at all levels has grown from eight thousand students in 1965 to more than sixteen thousand students today. Five years ago twelve different occupational education programs were available to our high school students. Current applicants may elect to enter any one of twenty-six career preparatory programs. Meanwhile, new offerings are continually being planned.

In addition to traditional vocational course offerings such as auto mechanics, machine processes, and carpentry, many programs not previously available in Rhode Island's high schools are now being offered. These include Barbering, Commercial Art, Cosmetology, Data Processing, Fashion and Home Design, Food Service, Nursing Assistant and Industrial Chemistry, among others.

Consideration is now being given to the possible adoption of the following programs to meet the needs of Rhode Island's divergent economy: (1) Fire Science, (2) Heavy Equipment Operation and Maintenance, (3) Marine Sciences-Oceanography, (4) Plastics, (5) Recreation and (6) Small Craft Construction, Repair, Maintenance and Service. Consideration is also being given to the further expansion of the Consumer and Homemaking Education program; the establishment of a core curriculum in Health Occupations which could prepare general, multi-purpose health workers motivated toward a health career and capable of entry-level employment in a variety of jobs; and further expansion of career education and pre-vocational programs.

The demands of our economy, of youth and adults, and of industrial leaders have continued to exceed space available in the new facilities. Consequently, in November, 1970 the State's voters approved spending of seven and three quarter million dollars to provide the additional shops, laboratories, and equipment needed to prepare more students for employment. Plans for the actual facility development are currently being considered by the Board of Regents.

All of the new facilities are being constructed with flexibility of spaces as a paramount consideration in order to facilitate curriculum and program changes resulting from changing industry demands and changing student needs. Provisions have also been made for serving the special educational needs of handicapped and disadvantaged students.

Rhode Island, in expanding and improving its vocational-technical training capability through construction of area vocational schools is in the center of a national trend. Over one thousand such schools are in planning or under construction throughout the country. As the demand for more and better trained workers to fill the State's manpower need increases, the new area schools will play an increasingly important role in Rhode Island's economic future.

Several guiding principles have been established to ensure that the facility development occurs in those areas of the State having the greatest need and, also, in those areas promising the most efficient use of space and equipment. These principles, summarized, are:

First, that those sections of Rhode Island presently lacking a centralized regional vocational education facility be given highest priority.

Second, that special consideration be extended to serve school districts with present and anticipated higher concentrations of vocational program applicants.

Third, that wherever feasible, construction of additions to existing vocational facilities would prove most efficient.

Fourth, that school systems to be charged with future responsibility for operating the State-constructed facilities indicate a strong commitment to career education as well as to such concepts as: extended school day—school year use of facilities, special effort and emphasis on guidance and on serving the vocational education needs of their region's disadvantaged, handicapped, and adult populations.

Following these principles and after discussion with students, and with local school and industry representatives, the State's network of Regional Vocational-Technical Schools is continuing to expand and gain strength.

RESEARCH

During the present reorganization of the Department of Education, Dr. Fred G. Burke, Commissioner of Education, initiated a total of nine task forces to examine activities of the present State Department of Education and to develop recommendations for restyling its function. One of these task forces, concerned with vocational education, was formulated on April 6, 1971. A final report including recommendations to strengthen research functions of the Vocational Division and the Department, was sent to Dr. Burke on May 27, 1971.

At this time it appears that a new Division of Research, Planning and Evaluation will be formed, based on Task Force input and the proposals of Dr. Burke's Management Team. The Vocational Education Task Force recommended that the part of the proposed Division of Research, Planning and Evaluation which is concerned with vocational education research be staffed by professional personnel with a background in Vocational Education.

POST-SECONDARY EDUCATION

With the establishment of the Rhode Island Junior College System and the opening of its first permanent campus in Warwick next year, post-secondary vocational education is expected to continue its rapid growth. The construction of a second state campus in Lincoln will begin during the 1972 fiscal year.

The state's single vocational-technical program, which is now in its fifth year in temporary quarters in Providence, has continually broadened its course offerings in the various technologies. Enrollment has increased from 106 students in the first year of operation to 560 students currently. Post-secondary enrollments will increase steadily over the next several years as this program becomes established in its permanent location at the Knight Campus in Warwick.

At the present time 8,079 of 87,963 Rhode Islanders in the age range of 20–24 or 9.2% of this population group is enrolled in post-secondary education programs This percentage is expected to increase to 9.9% during the next fiscal year. Twenty percent of all post-secondary students are enrolled in vocational education programs and, in five years that percentage is projected to increase to 37%.

Plans have been formulated by Rhode Island Junior College to install computer terminals at secondary area vocational facilities for the purpose of providing programmed instruction in related mathematics and English with the possibility of extending this instruction to all vocational-technical areas. Longer range planning recommends use of the computer to provide a data collection system for vocational education.

CHANGES IN METHOD OF REIMBURSEMENT TO SCHOOL DISTRICTS

The purpose of the Vocational Amendments of 1968 is to authorize Federal grants to states to assist them to maintain, extend, and improve existing vocational education programs and to develop new and innovative approaches for the education of individuals of all ages, in all communities of the State. The first Rhode Island programs utilizing 68 Amendment funds were funded in January of 1970. Prior to this time, distribution of Vocational Education funds in Rhode Island was not based on a competitive process. The limited funds available were apportioned within the State so as to defray the costs of eight local programs which operated year after year. Today, all of the State's thirty-nine communities, as well as several state-wide agencies receive support under the amendments.

Project proposals are now developed by local education agencies and other eligible institutions in accordance with State and Federal guidelines. Those proposals which present strong evidence of need and potential for successful implementation are approved on recommendation of the Vocational Division and funded on a quarterly basis. Successive year funding is not guaranteed in view of the many contingencies which may affect the annual Federal appropriation to Rhode Island.

No changes in the method of reimbursement have been made in the past eighteen months since funding has begun. However, the application procedure has been modified and new proposal forms have been developed. In addition, a preliminary proposal abstract must be sent to the Vocational Division in order that similar proposals may be compared with each other for assessment of their relative merit.

Selected proposals are then returned and a more detailed proposal is developed, thus eliminating, for the school district, the tedious job of formulating a proposal only to have it disapproved for poor design or duplicate proposal had been accepted.

EDUCATION FOR THE DISADVANTAGED AND HANDICAPPED

In the area of the disadvantaged under Part A, the Vocational Division has funded one agency, Opportunities Industrialization Center, and four public school systems—Providence, Warwick, Woonsocket and Newport—to operate seven programs for 150 students. These programs include the upgrading of skills for drafting, clerical and secretarial employees, distributive education, health occupations for dropouts, cooperative work experience and prevocational programs.

Under Part B, the Division has funded fourteen public school systems and one agency to operate twenty programs for 720 students. In addition to occupational programs in metal working, service station mechanics, printing, data processing, agriculture, consumer and homemaking and clerical, other programs of a remedial and incentive nature are conducted—these include both developmental reading and prevocational programs.

The Vocational Incentive Program in Pawtucket was implemented to meet the needs of a group of vocational high school senior students. The purpose of the program is to provide remedial instruction in the areas of reading and the language arts to students from low socio-economic groups in order to overcome "past failures" and encourage continuation of their education at the junior college level. To implement the program a Learning Center was established at the Vocational High School and equipped with listening centers and a variety of other audio-visual equipment. Remediation received top priority, however, extension of basic skills beyond remedial work also received considerable attention. The evaluation of the program is expected to provide new insights into the instruction of reading and the language arts for vocational students.

An occupational program for the disadvantaged youth is being carried on at the Vocational-Technical School of Rhode Island. Deficiency in reading ability has been demonstrated to be one of the most limiting educational handicaps encountered by the majority of these students. Achievement in a reading program reinforces a student's vocational knowledge and also provides him with the impetus and confidence for greater success in our technological society. In addition to its reading aspects, the nature of this program necessitates the utilization of a guidance counselor who can become a personal agent of the alienated disadvantaged in assisting them to "negotiate the system."

The extreme nature and variety of special needs requires a low counselor-pupil ratio in order to detect needs and provide real assistance. Work study programs provide such a ratio as well as opportunities for many students in after school and summer programs.

In the area of the handicapped, the Division has funded two schools and one agency to run three programs for 115 students. At the Centers of the Rhode Island Association for Retarded Children and at the Ladd School, students are trained in a variety of basic skills including preparation for hotel and restaurant work, small machine operation, and a variety of other service occupations. At the Rhode Island School for the Deaf an employment readiness program is designed to expose poorly motivated deaf students to the world of work. The exposure includes job application procedures, job interviews, on the job training, and work habit development with special emphasis given to concerns encountered by deaf students. Students are counseled in order to determine vocational potential and possible emotional factors which may contribute to one's lack of motivation. Evaluation is based on readiness for employment as assessed by employment counselors and vocational education teachers.

Virtually the entire State is designated as economically depressed by the Economic Development Agency. Programs for secondary, post-secondary, adult, disadvantaged, and handicapped were consequently offered throughout the State. However, programs for the disadvantaged and handicapped have been concentrated in the Providence Metropolitan area which is designated as a high unemployment area. Programs previously mentioned in this report, such as the Vocational Incentive Program in Pawtucket and the Occupational Program for the Disadvantaged conducted at Corliss Park in Providence have had significant impact on this aspect of vocational education.

Areas of high youth unemployment and school dropouts offered programs in cooperative education, work study, and occupational exploration in order to make school a more lasting and meaningful experience.

The pre-vocational program initiated in the Providence School System provides students with the opportunity of exploring the world of work in order that they might be better qualified to make occupational decisions. This program entices students to stay in school, thus decreasing the rate of school dropouts which constitutes a major proportion of our unemployment pool.

The growth of the Manpower Development and Training Act Programs in Rhode Island has followed the pattern of growth reported across the nation. From a few skilled programs in 1962, M.D.T.A. has grown to a reported twenty-seven (27) projects offering in excess of one thousand training slots. Program opportunities run the gamut from a pre-vocational core program to numerous skilled occupations, offering the unemployed and disadvantaged population of the state an entry into occupations previously unavailable to them. To achieve these goals M.D.T.A. offers the following services: (1) Pre-Vocational Training, (2) Skills Training, (3) Adult Correctional Institution Projects, and (4) Special Programs and Linkages, for example, the Work Incentive Program (WIN) and Opportunities Industrialization Center (OIC).

CONTRIBUTIONS OF THE STATE ADVISORY COUNCIL

The Rhode Island State Advisory Council for Vocational and Technical Education, first established in April 1967, is composed of sixteen members of diverse occupational interests. In addition to those duties and responsibilities under the provisions of Public Law 90-576, the Council has become actively involved in the advancement of vocational education through various promotional activities and maintains continuous contact with local area advisory committees.

The Council published its first annual evaluation report of vocational-technical education in Rhode Island in June, 1970. The study and analysis of the State-wide program, which provided a basis for the report, was conducted during the Spring of 1970 by the American Vocational Research Corporation under contract with the Council. At the present time, the Council's second annual report is in preparation.

The Council, working with representatives of the National Advisory Council, has contracted with a local film company to prepare television and radio spot announcements promoting vocational education in Rhode Island. The thirty and sixty-second spot announcements will report on the progress of and opportunities for occupational education in Rhode Island. Interested views or listeners will be referred to a local area coordinator of vocational-technical education who will further inform respondents of opportunities available to them in facilities close to their homes.

OVERVIEW

Recent Federal Vocational Education legislation has had a profound and lasting effect upon Occupational Education in Rhode Island. Largely as a result of the 1963 and 1968 Vocational Education Acts the combined State and local appropriation for vocational education has risen from an annual average of $471,334 during 1960–1964 to an annual average of $2,358,695 during 1965–1969. This total does not include a seven and three quarter million dollar vocational school construction bond issue, passed by the State's voters last November.

Seven new regional vocational technical facilities have been constructed in Rhode Island during the past five years, providing a network of job training opportunities for citizens throughout the State.

Programs during this same period have increased from a total of twelve occupational fields to the present twenty-six career preparation offerings. Sixteen thousand students are enrolled in these programs compared with a 1965 enrollment of eight thousand students.

Whereas only eight of Rhode Island's thirty-nine school systems shared substantially in the federal vocational education allotment to Rhode Island as recently as 1969, all Rhode Island school systems are now able to provide important occupational services for their students.

Special training and placement provisions have been made available to the State's handicapped and disadvantaged populations. Public post-secondary career preparation, unknown in Rhode Island in 1965, is now enrolling more than five hundred students in associate degree and diploma programs with substantial expansion of offerings planned for the near future.

In addition, new linkages have been established between the State Vocational Education Agency and other Rhode Island institutions having common or similar interests, thus producing better education for our citizens while at the same time achieving improved efficiency.

Obviously, therefore, the availability of job preparation for Rhode Islanders has been stimulated beyond all expectations through the Vocational Education Act and Amendments.

Much hard work remains before us in Rhode Island in striving toward our goal of the highest possible quality of job preparation "for all persons of all ages".

We must improve our research capability;

We must build more vocational-technical schools;

We must serve a much higher percentage of our secondary, post-secondary, and adult populations;

We must initiate career development programs in our elementary schools;

We must help more of our disadvantaged and handicapped students toward employment and;

We must improve our vocational teacher education programs.

Federal assistance in all of its many forms will be needed if we are to become successful in this work.

SOUTH CAROLINA

State Director—Dr. Cecil H. Johnson, Jr.

ANNUAL REPORT, VOCATIONAL EDUCATION IN SOUTH CAROLINA

(For the year ending June 30, 1970)

INTRODUCTION

Vocational Education in the public schools of South Carolina makes sense—to young people, adults, and business too! It touches the lives of almost each family and each community. It qualifies young people and adults to earn a paycheck, and provides a source of manpower skills to employers.

This 1969–70 annual report reflects the continued growth of Vocational Education during the fiscal year and the increasing number of students who are profiting from skill training. Also evident is a growing realization of the potential Vocational Education has to provide a background of technical knowledge and skills required to feed Manpower into an expanding economy.

Vocational Education is offered in South Carolina public schools by 231 high schools and 26 area vocational education centers. Occupational training is provided in seven areas. These include Trades and Industry, Office Occupations, Distributive Education, Agriculture, Occupational Home Economics, Consumer and Homemaking, and Health Occupations. Special Vocational Education programs also provide job entry skills for handicapped and disadvantaged students. Occupational orientation programs are now being offered at the ninth and tenth grade levels.

Graduates of these occupational courses in high school find ready employment or are well qualified for specialized training at Technical Education Centers, and other post high school institutions. Some enter college to prepare for professional careers.

These graduates also represent a new generation that is seeking to rise above the levels of the past. They are the product of a changing economy and a new freedom to select a field of work in which they have an interest and ability. Vocational Education seeks to develop the talent of each individual and to instill in the student dignity of work, pride in workmanship, and job responsibility.

A significant and detectable improvement in the image of Vocational Education occurred during the 1969–70. This improvement is noted in an increased realization by school administrators, teachers, and guidance counselors that a very high percentage of students of high school age, both the gifted and the slow learner, can profit from vocational training. Business and industrial leaders recognize that a supply of new workers is graduating from our high schools each year.

This annual report documents some of the highlights of vocational education activities during the year with emphasis on enrollments by service areas and in the area vocational centers, and expenditures for vocational education in the several occupational areas. Trends in development of special and pre-vocational education programs also are presented.

FINANCIAL EXPENDITURES 1969-70—SECONDARY, POST SECONDARY AND ADULT PROGRAMS (EXPENDITURES BY SERVICE AREAS)

Service area	Salary	Travel	Equipment	Supplies	Total
Agriculture	$1,745,391	$43,233	$59,825	$25,880	$1,874,329
Consumer and homemaking	1,651,129	14,668	48,379	12,978	1,727,154
Home economics (gainful)	163,477	854	577	808	165,716
Distributive education	223,736	2,178	5,014	1,323	232,251
Health occupations	259,763	172	791	378	261,104
Office occupations	764,340	120	52,608	3,712	820,780
Trades and industry	1,844,155	2,102	119,939	32,932	1,999,128
Guidance	103,914	3,037	594	669	108,214
Ancillary [1]	256,811	6,443	17,894	536	281,684
Grand total	7,012,716	72,807	305,621	79,216	7,470,360

[1] Ancillary services provided to school districts.

EXPENDITURES BY AREA VOCATIONAL CENTER (OPERATIONAL)

County	Area vocational center	Salary	Travel	Equipment	Supplies	Total
Aiken	Aiken	$65,572				$65,572
Do	Crescent City	49,473				49,473
Allendale	Allendale	43,481		$24,386	$3,670	71,537
Anderson	McDuffie	107,465	$2,663	1,943		112,071
Barnwell	Barnwell	28,087	468	16,726	5,701	50,973
Charleston	Murray	45,561		5,765		51,326
Cherokee	Cherokee	112,438		2,238		114,676
Chester	Chester	125,092	1,474	1,072	5,592	133,230
Colleton	Colleton	71,748		229	1,295	73,272
Darlington	Hartsville	44,572				44,572
Fairfield	Fairfield	87,729	1,337		1,448	90,514
Florence	Florence	111,944	200	1,701		113,845
Greenwood	Greenwood	67,132	175	8,235		75,542
Kershaw	Kershaw	96,144	2,600			98,744
Lancaster	Lancaster	85,542	900	2,700		89,142
Marion	Marion-Mullins	110,665				110,665
Marlboro	Marlboro	96,661	223		4,329	101,213
Oconee	Oconee	94,367		1,934		96,301
Orangeburg	Tri-County	57,744		878		58,622
Pickens	Pickens	112,065	503	1,179	12,479	126,242
Richland	Lower Richland	66,354	600			66,954
Do	Wilson	96,875	858			97,733
Do	Columbia	79,223	573			79,796
Spartanburg	R. D. Anderson	86,318	415		1,601	88,334
Do	Daniel Morgan	111,987	643	2,253	2,883	117,766
Union	Union	110,158	1,129			111,287
Grand total		2,164,388	14,761	71,239	39,014	2,289,402

AREA VOCATIONAL CENTERS (EQUIPMENT AND CONSTRUCTION EXPENDITURES)

Area vocational center	Equipment expenditures[1]	Construction expenditures[1]
Allendale	$148, 558. 00	$31, 787. 00
Anderson (McDuffie)	112, 932. 00	
Barnwell	33, 012. 00	52, 085. 00
Cherokee	10, 789. 00	2, 337. 00
Chester	8, 074. 00	
Colleton	176, 496. 00	106, 132. 00
Dillon		131, 111. 00
Fairfield	99, 521. 00	9, 648. 00
Florence	916. 00	
Greenville (Donaldson)		74, 290. 00
Greenwood	29, 554. 00	5, 052. 00
Kershaw	12, 838. 00	
Lancaster	34, 143. 00	
Marlboro	110, 533. 00	18, 407. 00
Oconee	11, 002. 00	
Pickens	52, 520. 00	1, 619. 00
Richland District No. 1[2]	8, 023. 00	
Richland District No. 2 (Wilson Vocational Center)	208, 066. 00	13, 024. 00
Spartanburg (Daniel Morgan)	36, 562. 00	3, 865. 00
Spartanburg (R. D. Anderson)	103, 211. 00	
Williamsburg	2, 314. 00	16, 864. 00
Total	1, 199, 064. 00	464, 221. 00

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[1] Includes State and Federal funding.
[2] Includes lower Richland and Columbia A.V.C's.

Administration and Ancillary Services

	Total funds expended
1. Administration	$853, 693. 00
2. Research Coordinating Unit	60, 075. 00
3. Media Center	112, 603. 00
4. Teacher Education	
a. Winthrop College	30, 026. 00
b. University of South Carolina	9, 218. 00
c. South Carolina State College	30, 327. 00
d. Clemson University	94, 903. 00
Total	$1, 190, 845. 00

Special Projects

	Vocational funds
1. Handicapped Students	$407, 891. 00
2. Disadvantaged Students	708, 846. 00
3. Economically Depressed Areas (102b)	172, 275. 00
Total	$1, 289, 012. 00

Summary Vocational Education Expenditures

	Total
1. Expenditures by Service Areas	$7, 470, 360. 00
2. Area Vocational Center Construction and Equipment	1, 663, 285. 00
3. Administration and Ancillary Services	1, 190, 845. 00
4. Special Projects	1, 289, 012. 00
Grand Total	$11, 613, 502. 00

VOCATIONAL EDUCATION ENROLLMENTS (ENROLLMENT BY SERVICE AREAS)

Service area	Secondary	Post-secondary	Adult	Total
Agriculture	16,396		15,546	31,942
Consumer and homemaking	28,943		16,773	45,716
Home economics (gainful)	822		161	983
Distributive education	3,153	4	1,043	4,200
Health occupations	546	866		1,412
Office occupations	6,805			6,805
Trades and industry	11,501		8,122	19,623
Grand total	68,166	870	41,645	110,681

AREA VOCATIONAL CENTER STUDENT ENROLLMENT BY SERVICE AREA

Area vocational center	Agriculture		Distributive education		Health occupations	
	Secondary	Adult	Secondary	Adult	Secondary	Adult
Aiken						
Crescent City			20			
Allendale						
McDuffie	151		70			
Barnwell	14					
Murray						
Cherokee	43				14	12
Chester	31				15	
Colleton	26					
Hartsville	57				12	
Fairfield			17		17	
Florence	52	24	38		19	
Greenwood					21	
Kershaw			21		20	90
Lancaster	90				24	24
Marion-Mullins	28	13	56		30	73
Marlboro	26		49		15	
Oconee					24	15
Tri-County						
Pickens	29				15	
Lower-Richland						
Wilson	25		14		12	
Columbia						
R. D. Anderson					27	
Daniel Morgan					26	
Union			25			
Total	572	37	310		291	214
Percent of total secondary or adult calculated separately	7.4	1.2	4.0	0	3.7	6.7

Area vocational center	Home economics (gainful)		Office occupations		Trades and industry	
	Secondary	Adult	Secondary	Adult	Secondary	Adult
Aiken					234	533
Crescent City	19				130	
Allendale			120	18	78	23
McDuffie			99		255	45
Barnwell			8		55	
Murray					121	
Cherokee	51		49	33	298	91
Chester			49	99	367	99
Colleton	24		33	24	164	56
Hartsville					172	30
Fairfield	12	14	23	39	159	126
Florence	10	22	152	18	220	36
Greenwood	52				143	
Kershaw			29	120	207	364
Lancaster			25	72	306	197
Marion-Mullins		27	147	170	207	398
Marlboro			29		212	49
Oconee					269	56
Tri-County			23		244	
Pickens			25		284	15
Lower-Richland	32				205	
Wilson			24		139	
Columbia	105	20			168	
R. D. Anderson	16		26		197	97
Daniel Morgan	36				338	55
Union					211	
Total	357	83	861	593	5,383	2,270
Percent of total secondary or adult calculated spearately	4.6	2.6	11.1	18.5	69.2	71.0

SPECIAL PROJECTS (1969-70)—HANDICAPPED STUDENTS

County, school, and program	Enrollment	
	Male	Female
Aiken: A. L. Corbett & Ridge Hill—Trades and industrial	66	--------
Allendale: Byrd—Prevocational	28	28
Anderson:		
McDuffie—Agriculture, trades and industrial, prevocational	11	8
Spearman—Prevocational	17	--------
Charleston:		
Countywide (4 schools)—Prevocational	74	25
Murray Vocational Center—Prevocational	7	--------
Darlington: Butler Junior and Senior, Hartsville High School—Prevocational	32	--------
Dorchester: S.C. Habilitation Center—Specialized	30	5
Fairfield: Area Vocational Center—Prevocational	20	12
Georgetown: Rosemary—Trades and industrial	31	--------
Greenwood: Emerald Junior High School—Prevocational	2	--------
Horry:		
Myrtle Beach—Prevocational	38	24
Conway—Prevocational	34	1
Kershaw:		
Area vocational center—Trades and industrial	33	31
Do	15	19
Lancaster: Lancaster and South High Schools—Prevocational	24	16
Marion: Area Vocational Center—Distributive education and trades and industrial	32	--------
McCormick: Area Vocational Center—Trades and industrial	--------	21
Orangeburg: Tri-County Tech—Trades and industrial	32	--------
Richland: Columbia City schools—Distributive education	2	--------
Spartanburg No. 1: Landrum and Chapman—Prevocational	61	32
Spartanburg No. 5: D. R. Hill Junior High, James F. Byrnes High—Prevocational	14	12
Spartanburg No. 7: Special Service Center—Prevocational	56	15
Union: Area Vocational Center—Distributive education	4	5
Williamsburg: All 7th and 8th graders—Prevocational	66	44
Total	721	316
Total enrollment		1,037

SPECIAL PROJECTS (1969-70)—DISADVANTAGED STUDENTS

County, school, and program	Enrollment	
	Male	Female
Aiken: Crescent—Distributive education	11	9
Anderson No. 5: McDuffie—Agriculture	28	--------
Charleston:		
North Charleston—Prevocational	20	--------
Chicora—Prevocational	--------	37
Chesterfield:		
Cheraw, McBee, Long High Schools—Prevocational	40	39
Chesterfield, Pageland—Prevocational	37	30
Darlington: Spaulding—Trades and industrial	15	--------
Fairfield:		
Fairfield High—Prevocational	79	--------
McCrorey-Liston (equipment purchased, to be initiated fiscal year 1971-72)—Prevocational	--------	--------
Florence: Area Vocational Center—All areas	103	15
Georgetown: Howard—Trades and industrial	1	27
Horry:		
Loris—Agriculture	21	--------
All junior and Senior high schools—Prevocational	48	17
Whittemore—Agriculture	40	--------
Kershaw:		
Area Vocational Center (summer)—Prevocational	60	24
Area Vocational Center—Trades and inductrial	82	40
Lancaster: South Junior High—Prevocational	48	13
Lee: Dennis—H. E. Gainful	--------	23
Dorchester: Summerville—Trades and industrial	19	--------
Lexington No. 1:		
Pelion—Prevocational	21	9
Gilbert—Prevocational	22	19
Lexington No. 4: Monroe Pinckney—Office occupations	14	27
Lexington No. 5:		
Chapin—Prevocational	24	10
Irmo—Prevocational	23	17
McCormick:		
Area Vocational Center—Trades and industrial	27	--------
Area Vocational Center—Prevocational	--------	22
Marion No. 2: Palmetto-Mullins—Prevocational	36	55
Marion No. 4: Area Vocational Center—Agriculture	34	--------
Marlboro: East Side—Prevocational	81	13

SPECIAL PROJECTS (1969–70)—DISADVANTAGED STUDENTS—Continued

County, school, and program	Enrollment	
	Male	Female
Oconee:		
Walhalla and Seneca Junior High Schools—Prevocational	57	
Seneca and Westminster High Schools—Prevocational	30	34
Richland No. 1: C. A. Johnson—Consumer		24
Saluda: Saluda (equipment purchased, program to be initiated fiscal year 1971–72)—Small motors		
Spartanburg No. 4: Woodruff Junior High—Prevocational	90	70
Spartanburg No. 6:		
R. D. Anderson—Prevocational	57	
Fairforest—Prevocational	136	
Spartanburg No. 7: Daniel Morgan—Prevocational	72	
Union:		
Union—Trades and industrial	49	
Area Vocational Center—Trades and industrial	23	
Area Vocational Center—Health		14
Williamsburg: Williamsburg—Trades and industrial	58	
York: Clover (summer)—Prevocational	10	6
Statewide: S. C. Department of Juvenile Corrections—Specialized	52	
Total	1,566	596
Total enrollment	2,162	

ECONOMICALLY DEPRESSED AREAS

County and school	Service area	Student enrollment
Chesterfield:		
Chesterfield High	Trades and industry	36
	Office occupations	175
Pageland	do	75
Clarendon: East Clarendon High	do	25
Darlington:		
Spaulding High School	Trades and industry	45
Mayo High School	do	20
Rosenwald High School	do	20
St. John's High School	Office occupations	24
Fairfield: Fairfield Area Vocational Center	Trades and industry	15
Lee: Ashwood-Central High	do	60
McCormick: McCormick Vocational School	do	31
Marion: Johnakin High School	do	100
Total		626

VOCATIONAL EDUCATION COURSE OFFERINGS

A—SECONDARY INSTRUCTIONAL LEVEL

Aviation Mechanics
Agricultural Mechanics
Agricultural Production
Air Conditioning and Refrigeratio
Auto Mechanics
Body and Fender (Auto)
Building Construction
Business Machines Repair
Carpentry
Child Care Aid
Clothing Maintenance
Commercial Cooking
Consumer and Homemaking
Cosmetology
Distributive Education
Diversified Occupations
Drafting
Electricity
Electronics
Food Service
Forestry
Graphic Arts
Industrial Sewing
Interior Design
Landscape Design
Machine Shop
Masonry
Office Occupations
Ornamental Horticulture
Plumbing
Practical Nursing
Sheet Metal
Tile Setting
Textiles
Welding

B—ADULT INSTRUCTIONAL LEVEL [1]

Commercial Floral Design
Computer Programming
Highway Maintenance
Income Tax Accounting
Meat Cutting
Pharmacology
Dental Assistant
Time & Study Control
Upholstery
Weaving

[1] Adult course offerings also include those listed for the Secondary Instructional Level program and others as justified.

"PROJECT SUCCEED" [1]

"Project Succeed" is based on the premise that students can succeed if provided a relevant curriculum tailored to the abilities, needs, interests and aptitudes of each individual student. Such a curriculum departs from the traditional academic approach by including vocational exploration for a two-year period in grades nine and ten that will lead to vocational specialization for a two-year period in grades eleven and twelve. Recognizing that general education and vocational education must go hand in hand, the curriculum is designed to provide the necessary general education skills and knowledge necessary for societal needs, employment needs, and further education that will complement the vocational exploration and specialization. The components of the curriculum include vocational exploration and specialization, communication, computation, personal knowledge and human relations, and environmental skills and knowledge as well as adequate opportunity for elective areas of study according to student interest and need.

The overall objective of the project is to develop and make available, at the high school level, a relevant program of education for underachieving, noncollege-bound students with high dropout potential. Specific objectives include:

1. Provide a multi-level relevant program of studies.
2. Identify the potential dropout and/or underachiever, keep him in school and enable him to graduate.
3. Provide placement on a job or in post high school education.

Expected contributions to education include:

1. The development of programs of study that are relevant for students such as those included in this project.
2. A sharp decline in the dropout rate.
3. The reorientation of teachers toward a student-centered approach to teaching.
4. General and vocational education will be coordinated rather than coexisting entities.
5. The level of education of the population will be raised and thereby the earning capacity of the recipients.
6. Level I (9th grade) curriculum materials for the coordinated program of general and vocational education have been developed in sequential modules in the areas of communication skills, computation skills, personal knowledge and human relations skills, and scientific and environmental knowledge and skills.

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[1] Funds were obligated but not expended during 1969–70.

Work has begun on Level II of computation and communication skills and will begin in January on vocational exploration instructional units. Levels III and IV of communication skills and Level II of personal knowledge and human relations skills will be developed soon.

"Project Succeed" is now in operation in ten schools (Seneca Senior High, Wren High, Chapin High, Lancaster High, Hartsville Jr. High, Butler High, Socastee High, Burke High, Leavelle-McCampbell High, and Jefferson Jr. High) with 420 students enrolled. As school closed for the holidays only two students had dropped out. Expansion to 100 schools is planned for the 1971–72 school year.

The curriculum materials and teaching methods have been very successful to date. Students and teachers alike generally are favorably impressed. Many students for the first time are succeeding and are happy in school and take pride in their work and accomplishments. Teachers and coordinators state that "Project Succeed" is keeping students in school and has opened the door to success in school for them. They also report that there are less dropouts than normal among other potential dropouts in the schools not enrolled in the project because they feel that they might eventually get into it. Each school has a long list of students who want to enroll in the project.

In essence the curriculum adjustments in grades nine through twelve shall aim toward providing meaningful, relevant educational experiences for underachieving noncollege-bound students. Thus through experiencing success instead of failure, students should be encouraged to remain in school and participate in the worthwhile educational program through graduation.

SUMMARY

Vocational Education during the 1969–70 fiscal year entered the decade of the '70's with a growing responsibility to qualify young people for employment. There also is an increasing public concern for occupational education in high schools that is building a brighter future for more youth and adults to acquire an employment skill and to share in economic progress.

More and more business leaders are utilizing Vocational Education programs in their communities to provide personnel and to upgrade present employees. Equating Vocational Education curriculum to the requirements of employers was especially noted during the past year in which enrollment increases occurred in skills much in demand by industry.

Increased enrollment came in Distributive Education, Trade and Industrial Education, Health Occupations, and in occupations related to Home Economics. Enrollment reached 110,681 persons including 68,166 high school students, 870 in post-secondary courses, and 41,645 adults in evening courses. Total enrollment also included 1,037 students in vocational programs for handicapped students and 2,162 students in the vocational curriculum for disadvantaged students.

Expenditures of $11,613,502 for Vocational Education during the past year reflect adjustments in the occupational training programs to a changing economy. Nearly $2 million went into Trade and Industrial Education programs which is now leading all other vocational service areas in program expansion. Further expansion of courses in occupations related to Home Economics is noted in expenditures of $165,716 for this program.

Total expenditures included $7,470,360 for use by all vocational service areas in instructional programs, $2,289,402 for operation of 26 area vocational centers, $464,221 for construction of new area vocational centers and equipment, and $1,190,845 for administration and ancillary services.

Occupational education leading to job entry or advanced post high school study were offered in 45 career fields. These courses offered some type of occupational skill preparation for high school students and adults in nearly every community in the State. Many of these schools provided occupational opportunities to adults through evening classes. In many communities, the evening classes provided the most convenient opportunity for local adults to acquire a job skill, or to acquire additional training to upgrade them in present employment.

Twenty-six area vocational centers in operation last year enrolled 10,971 high school students and adults. This represents an average of 422 students per school. Enrollment included 7,774 high school students and 3,197 adults. Enrollment in these centers also reflected increases of students preparing for skills required by industry. Highest adult enrollment came in air conditioning and refrigeration, auto mechanics, drafting, electricity, machine shop, office practice, textiles, weaving and welding.

The area vocational center enrollment, which represents about 8 percent of the total vocational enrollment, reflects progress in gearing occupational programs to manpower needs. Enrollment increases also reflect effective planning by local school districts in developing vocational programs on the basis of projected labor demands as well as to serve varied needs of the students.

Twenty-six area vocational centers are now in operation. Two centers under construction include Spartanburg No. 3 and Donaldson Area Vocational Center.

Three centers are projected for construction to begin this year. They are located in Charleston County, Orangeburg County, and Union County.

A brief summary of Vocational Education programs offered in Trade and Industrial Education, Office Occupations, Home Economics, Agriculture, and Distributive Education, follows:

DISTRIBUTIVE EDUCATION

Distributive Education courses showed a 20 percent gain during the past fiscal year in enrollment of students who are preparing for employment opportunities in sales and marketing.

Distributive Education courses were offered in 69 high schools, seven vocational centers, and in one junior high school. More than 5,000 persons were enrolled in these courses including 4,200 high school students and 1,043 adults in evening classes.

High School Distributive Education courses are designed to qualify young people for job entry in sales and marketing positions, while adult courses offer instruction at the management, supervisory and employee levels. Adult courses were offered in business law, consumer economics, department store services, insurance, investments, leadership and supervisory development, motel management, real estate, speech, basic salesmanship, and technical report writing.

AGRICULTURE

Vocational Agriculture Education courses in high school are preparing students for a wide variety of agri-business careers which result from economic trends, technological developments in agriculture, and a shortage of farm labor which requires use of more and larger mechanized equipment.

To keep pace with these trends, courses have been designed to include a broad base of instruction in plant and animal science, and agricultural technology in order to prepare students for the growing number of agricultural occupations.

Nearly 16,400 students enrolled in Vocational Agriculture. Courses for agriculture occupations enrolled 2,394 of the students for training in agricultural mechanics, sales and services, ornamental horticulture, forestry, and pulpwood harvesting.

Vocational Agriculture teachers also worked with 15,546 out-of-school youth and adults through organized group instruction, and on an individual basis.

TRADE AND INDUSTRIAL EDUCATION

High school Vocational Trade and Industrial Education courses are making a significant contribution to labor market skills required by South Carolina industry. More than 4,200 high school students who graduated last June were prepared for employment through Vocational Trade and Industrial Education courses.

Trade and Industrial Education reached 19,623 students including 11,501 in high school and 8,122 adults in evening classes. Evening courses are offered under the local high school Vocational Education Departments for those adults who desire to qualify for a job skill, to prepare for a new skill related to needs of local industry, or to upgrade skills in present work.

More and more high school Vocational Education Departments are requesting new courses or expansion of present courses in Trade and Industrial skills because of the growing demands for skilled and semi-skilled employees. Continued addition of courses in schools throughout the State offers a wider variety of occupational training to more students, and serves requests from industry for trained workers.

HOME ECONOMICS OCCUPATIONS

More and more students are pursuing gainful employment as a result of training acquired in the Home Economics Occupations program. Graduates of these courses are earning excellent paychecks in full time employment where they apply skills and knowledge acquired n high school. Many also are rewarded with part-time employment in jobs related to their classroom study before graduation. Making instructions and work experiences relevant to job market demands of occupational skills related to Home Economics have qualified these students for job responsibility.

Home Economics Occupations courses during 1969–70 were offered in food service, child care aide, clothing service, and interior design aide. Enrollment totaled 983 students including 822 hgh school youth and 161 persons in special adult courses designed to meet local community needs.

CONSUMER AND HOMEMAKING

Vocational Consumer and Homemaking Education programs emphasize teaching of management and responsibilities that go into this role of the modern homemaker. Consumer and homemaking programs also continued increased emphasis on instructions to serve needs of individuals with varying backgrounds including youth preparation for role of homemaker, adults in improving homemaker responsibilities, and classes for socially, culturally and economically disadvantaged.

Enrollment in consumer and homemaking education programs totaled 45,716 persons including 28,883 high school students, and 16,773 adults.

OFFICE OCCUPATIONS

Office Occupations enrolled 6,805 high school students who received vocational training and practices leading to employment qualification for the business office during the past fiscal year. A total of 310 Office Occupation programs were offered in 165 high schools. Forty high schools offered courses for the first time during the year, and seven vocational centers were equipped for new courses.

These courses are qualifying students for employment after graduation as stenographers, secretaries, clerical, office machine operations, business office procedures, and other skills relating to the business office responsibilities. Many of these students worked in part-time jobs pertaining to their field of study during the school week, and full time during the summer.

HEALTH OCCUPATIONS

Health Occupations courses, offered to high school students and adults, enrolled 1,412 during the past year. Courses were offered in practical nursing, surgical technicans, dental assistants, and supplementary pharmacology for licensed practical nurses. Practical nursing courses are offered to both high school seniors and post-secondary students. The post-secondary program for adults is conducted on a 12-month basis.

Nine Supplementary Pharmacology courses for the LPN were held with an enrollment of 132 students.

Twenty-nine students were enrolled in two Surgical Technician programs.

Twenty-two students were enrolled in two Dental Assistant programs.

One hundred forty-one students were enrolled in four Nurses Aide classes.

Graduates of vocational courses during the past year received balanced instruction in both academic subjects and vocational skills, and practical work experience along with proper attitudes essential to efficient performance. Occupational training combined with this sound academic background gives vocational graduates the broad education required of productive and dependable employees.

SOUTH DAKOTA

State Director—E. B. Oleson

STATEMENT OF E. B. OLESON, EXECUTIVE OFFICER, STATE BOARD OF VOCATIONAL EDUCATION, STATE CAPITOL, PIERRE, S. DAK.

Mr. Chairman and members of the subcommittee, the members of the South Dakota State Board of Vocational Education and I are grateful to have this opportunity to reflect the happenings in vocational education in South Dakota due to the Vocational Education Act of 1963, as amended in 1968. We realize that it is most difficult to pass legislation fitting to the need of each state; therefore, we sincerely appreciate this opportunity to present the findings in our state as a result of previous legislation. There are some recommendations which we believe will strengthen our education programs statewide, and, in the end result, provide for the welfare of the nation.

Vocational-technical education in South Dakota, as well as the nation, is experiencing its greatest period of growth. Since the passage of the Vocational Education Act of 1963 (P. L. 88-210) and the 1968 Amendments (P. L. 90-576), the image of vocational education has changed dramatically nationwide. In South Dakota it has changed so rapidly that resources have not been able to keep pace. An analysis of the information compiled by the South Dakota Division of Vocational Education reflects the following:

South Dakota is predominately a rural state, with an area of 77,049 square miles and a population of 665,507 people. The records show a continuous out-migration.

Since the implementation of the Vocational Education Act of 1963, in fiscal year 1965, Federal funds for vocational education have increased from $705,847 to $1,259,071 in fiscal year 1970, for a 78% increase.

State funds increased from $74,554 to $643,957, or a 763% increase.

Local funds increased from $1,145,921 to $2,147,287, or 88% increase.

Total from all sources has increased from $1,926,322 to $4,050,315, or 110% growth.

The secondary enrollment has grown from 10,551 students in fiscal year 1965 to 15,621 in fiscal year 1970, or a 48% increase.

The post-secondary enrollment has had the most significant growth. Fiscal year 1965 showed 438 students enrolled, with 143 in the health occupations. Fiscal year 1970 shows an enrollment of 1,062, with 300 enrolled in the health occupations. This is a 265% increase, with the largest group being enrolled in trade and industrial education. Also a balance in other occupational fields.

Adult education has not had a significant growth; however, the quality has been improved and programs are more nearly geared to manpower needs and to job opportunities.

Training programs for the disadvantaged and the handicapped have grown. However, these people have been served in the educational programs in South Dakota largely through regular programs with added services. Because of the lack of numbers of handicapped persons in geographical areas, it is not feasible to identify them. Furthermore, it is not the philosophy of the State Board to label any particular group.

Cooperative education in South Dakota has had a fantastic growth. Fiscal year 1966 showed 11 programs with 293 students. There are 36 programs in fiscal year 1971, with an enrollment of 1,050 students. These students will have earnings of an estimated amount of $1,200,.000. These figures include programs for the disadvantaged.

Construction funds provided for in the 1963 Act made it possible to change the image of vocational education in South Dakota. These funds account for the significant growth in post-secondary education in the state. $3,056,100 of the Federal and local monies were spent for construction. However, this included only bricks and mortar. Equipment was charged to secondary or post-secondary programs.

Students enrolled under the Manpower Development and Training Act and other specially funded programs (JOBS, WIN, OJT) are enrolled under the single referral system in regular vocational education classes at a much more reasonable cost to the Federal government. Also, it is more beneficial to the student, as his image in much better upon graduation, and he has less problem in becoming employed.

Enrollments in higher education in South Dakota showed a decrease of 1400 students in the spring semester of fiscal year 1971, without any account of what happened to these people.

Provisions established under the Vocational Education Act of 1963 (P. L. 88–210), required the states to submit their annual projected activities to the U.S. Office of Education for approval. Under existing provisions of P. L. 90–576, Congress has required of the states a five year plan for vocational education. An additional requirement was incorporated which calls for local comprehensive plans for vocational education. This type of planning feature built into the legislation should be a stimulating factor to both the state and local educational agencies. However, in many instances where states have to rely heavily on the Federal funds it has proven unrealistic to make any kind of definite plans without knowing what kind of a budget they are working within, as allotments to the states have not been made until late in the year.

Previous statements show that the Federal appropriation has stimulated or generated more state and local monies to be spent for vocational education. This fact alone should be convincing enough to show that vocational education should be considered as an investment rather than an expense. I believe in the old Chinese proverb: "Give a man a fish and he will eat for a day; teach him to fish and he will eat for a lifetime".

We believe welfare payments to the needy are justifiable, but recipients able to work should make themselves available for training or employment. Too many crash programs are vying for the same clients. As one American Indian in South Dakota recently stated, and I quote, "It is impossible to find a plumber, an electrician, or a carpenter, but I can alway find a social worker."

The National Advisory Council for Vocational Education recently released figures indicating the Federal government now invests $14 in higher education for every $1 it invests in vocational education. Our nation spends $4 in remedial manpower programs for every $1 that it invests in vocational education as a source of prevention for unemployment and welfare dependency. These figures indicate that there is very little planning done at the national level, as there could not possibly be any justification for establishing these kinds of priorities if consideration were to be given to all people, of all ages, in all communities.

Vocational education enrolled nine times as many persons as were served in the various manpower programs with one-fourth the funding as was provided for the Labor Department programs.

We believe that these priorities are unrealistic and that priorities must be established to prevent the problems we are now experiencing.

Vocational-technical education is an integral part of the nation's system of education. Its programs are designed to meet the social needs of all citizens as well as the manpower needs of our economy. The primary mission of vocational education is preparation for work, retraining, and upgrading which brings purpose to the educational process.

In view of past experiences and knowledge and facts regarding actions taken which effect vocational education, the following recommendations are made, which we feel would strengthen the efforts of our State in providing a more effective program of vocational-technical education.

1. Provide for stronger leadership from the national level so as to eliminate a system of priorities between the elementary, secondary, higher education, and the Department of Labor.
2. Make the State Plans for Vocational Education more meaningful by appropriating funds early enough that planning can take place. Recommend at least two years advanced funding.
3. Consider vocational-technical education as an integral part of the total education program and fund it accordingly, so that the States can get at the source of the problem rather than operate "band-aid" programs.
4. Consider additional funds for construction and equipment.
5. Make provisions for self-liquidating bonds for dormitories and student centers for the post secondary area vocational schools centers such as the provisions for higher education dormitories and student centers.
6. Make possible the transfer of funds, with proper justification, from one category to another. State conditions dictate better utilization of funds.
7. Establish the State Advisory Councils in such a manner that there can be the proper communications with the State Board.

8. Strengthen the Student Loan Program.
9. Properly fund the Work Study Program.
10. Provide special funds and properly identify the role of the Bureau of Indian Affairs in implementation of vocational programs and group counseling in Bureau schools on the reservations. Federal vocational monies do little to generate enthusiasm enough to establish a high priority for vocational education in a Bureau school. The leadership of Bureau schools does not encourage occupational training.

TENNESSEE

State Director—Charles M. Dunn

PROGRESS REPORT, AREA VOCATIONAL-TECHNICAL SCHOOLS 1968–'71

Tennessee's system of Area Vocational-Technical Schools has experienced much change in the past three (3) years. The areas in which this change is most noticeable are as follows:

I. NEW SCHOOLS TO ENLARGE THE AREA OF COVERAGE

Three new area schools at Chattanooga, Pulaski, and Harriman have been constructed and equipped utilizing local, state, and Federal funds. This amounted to a total of $2,223,069.96.

With the inclusion of the Fire Training Center, there are twenty-*six (26) Area Vocational-Technical* Schools in full operation and one school at Paris under construction. These schools are strategically located throughout the state. This is in fulfillment of the intent of the General Assembly of the State of Tennesse that ultimately one or more schools would be within reasonable commuting distance of all citizens of the state. This has been accomplished to a high degree, and it is anticipated that future development will result in existing facilities rather than the establishment of additional Area Vocational-Technical Schools.

II. EXPANSION PROJECTS TO INCREASE CAPACITY

School and type of expansion

McMinnville: Construction of new classrooms and laboratories. One new shop to present building plus one new shop wing. This constitutes approximately 12,000 sq. ft. of new floor space.

Tri-Cities: One new shop to present building. Classrooms and laboratories. (15,000 sq. ft. of new floor space.)

Morristown: One shop addition; extensive site improvement; paving of parking area and driveways.

Elizabethton: Extensive construction of one new building consisting of one floor of shop areas and one floor of classrooms. School capacity increased 50%.

Livingston: One shop addition (4,200 sq. ft.) Air Conditioning of Adm. area, paving of driveways, and parking area.

Athens: One shop addition (Masonry Class) Air Conditioning of Adm. areas, paving of driveways, and parking area.

Crossville: Air Conditioning of classrooms and Adm. areas, paving of driveways and parking areas.

Jacksboro: Air Conditioning of classrooms and Adm. areas, paving of driveways and parking areas.

Shelbyville: Air Conditioning installed for Adm. areas and completion of classrooms.

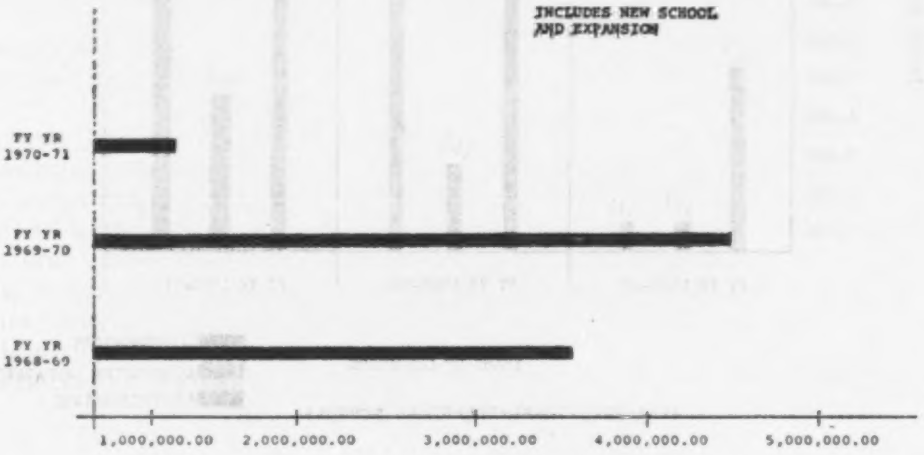
Jackson: One new shop wing and additional classrooms, causing enrollment increase of 30%. Additional floor space (7,000 sq. ft.).

Knoxville: 40,000 sq. ft. of additional space is proposed. Expected to be completed in FY 1971–72.

Pulaski: One shop addition (Masonry).

The expansion projects at McMinnville and Elizabethton were specifically designed to serve the handicapped and disadvantaged persons in those areas.

During the three year period 1968–71, the total amount of capital outlay expenditures for the new schools and expansion projects to include equipping and building amounted to $9,775,822.32.



CAPITOL OUTLAY EXPENDITURES

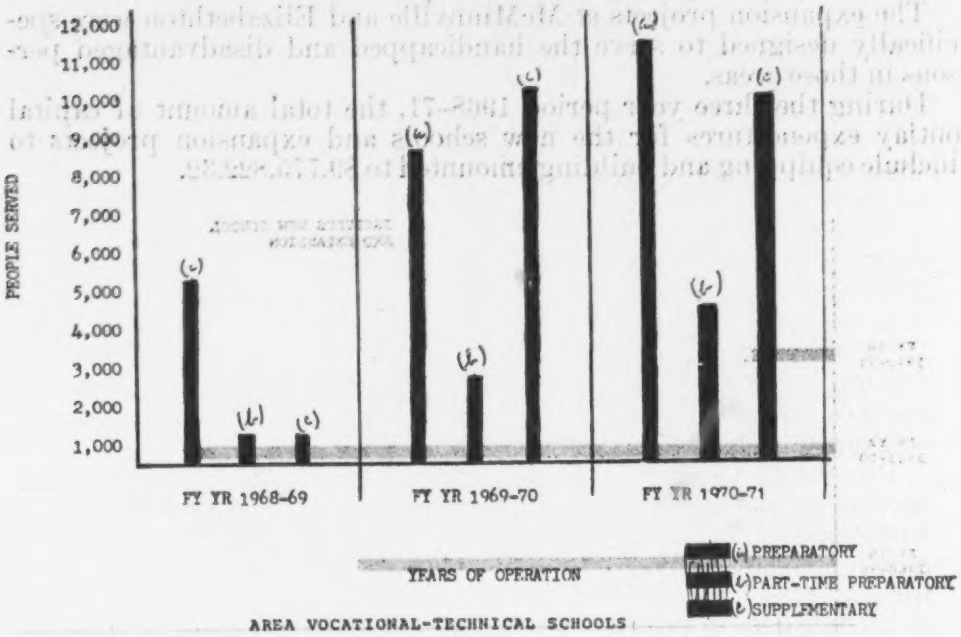
AREA VOCATIONAL-TECHNICAL SCHOOLS

III. ENROLLMENT—1968–71

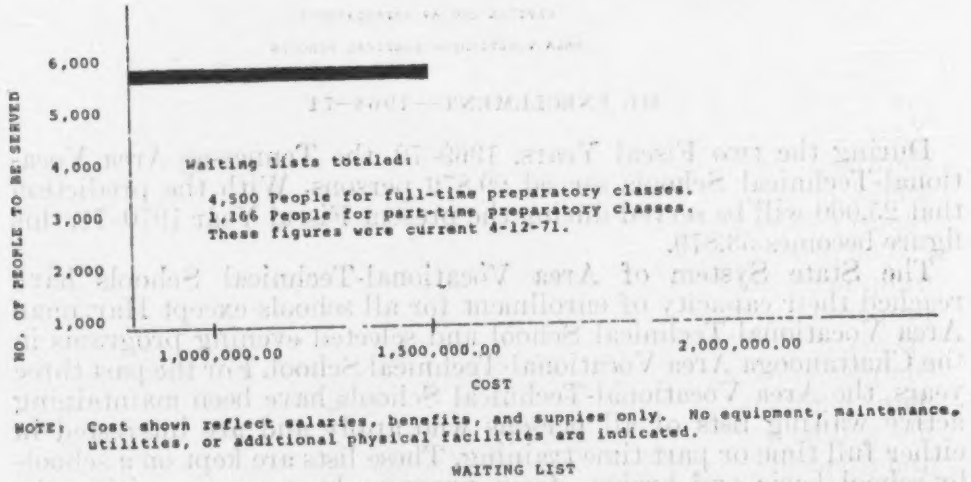
During the two Fiscal Years, 1969–70, the Tennessee Area Vocational-Technical Schools served 29,879 persons. With the prediction that 25,000 will be served during the present Fiscal Year 1970–71, this figure becomes 53,879.

The State System of Area Vocational-Technical Schools have reached their capacity of enrollment for all schools except Harriman Area Vocational-Technical School and selected evening programs in the Chattanooga Area Vocational-Technical School. For the past three years, the Area Vocational-Technical Schools have been maintaining active waiting lists of all persons who apply and are interested in either full time or part time training. These lists are kept on a school-by-school basis and broken down program by program within the schools. Each month a report is submitted to the Central Office, Area Vocational-Technical Schools, 214 Cordell Hull Building, Nashville, Tennessee. As of April 12, 1971, there are 5,666 Tennesseans waiting for training in the total system. Of this number, 4,500 are desiring full time training on a six hour per day basis (thirty hours per week) and 1,166 are desiring part time training to enter the labor market or to upgrade themselves in the labor market.

It is interesting to note that of the 5,666 on the waiting list 1,662 of them are veterans. Of this number of veterans, 1,473 are desiring full time training and the remaining 189 are desiring part time training. In addition to the veterans waiting, there are also 1,645 non-high school graduates desiring training who cannot hope to find sufficient employment without specialized training.



AREA VOCATIONAL-TECHNICAL SCHOOLS



NOTE: Cost shown reflect salaries, benefits, and suppies only. No equipment, maintenance, utilities, or additional physical facilities are indicated.

WAITING LIST

AREA VOCATIONAL-TECHNICAL SCHOOLS

IV. CURRICULUM DEVELOPMENT

The Area Vocational-Technical Schools employed six curriculum specialists. They have been assigned to assist the instructors in curriculum building. Each specialist is assigned a region which covers 4 or 5 schools. The specialists have accomplished some encouraging results.

The curriculum in all the Area Vocational-Technical Schools has been revised to accommodate students on an individual instruction basis. These activities included bringing together in one-week workshops groups of teachers from each of the areas of training offered by the area schools. During the week-long workshops those occupations for which the particular area of training was capable of preparing persons to enter were identified.

The curricula in these areas of training are now being broken down into that which is pertinent to prepare individuals for entry-level employment at various levels of difficulty within the field of employment. Thus, following this procedure, students may enter training at any given time. The school is enabled to receive students at any time that openings exist since instruction is on an individual basis; and, further a curriculum is prepared for each individual rather than groups of individuals. The consequence of this is that students at varying levels of ability can be accommodated by the same program. The student may be enrolled and taken from the point where he is at the time of enrollment and proceed to his highest level of ability. In this manner, a greater degree of articulation can be developed vertically between secondary programs, Area Vocational-Technical Schools postsecondary programs, technical institutes, and community colleges.

Present plans, when followed through, will result in further development of the curriculum at all levels along the lines begun in Area Vocational-Technical Schools. The area schools will continue development of this project, which, in the final analysis, involves every instructor employed in the Area Vocational-Technical School system as well as the curriculum specialists and staff personnel.

V. FOLLOW-UP

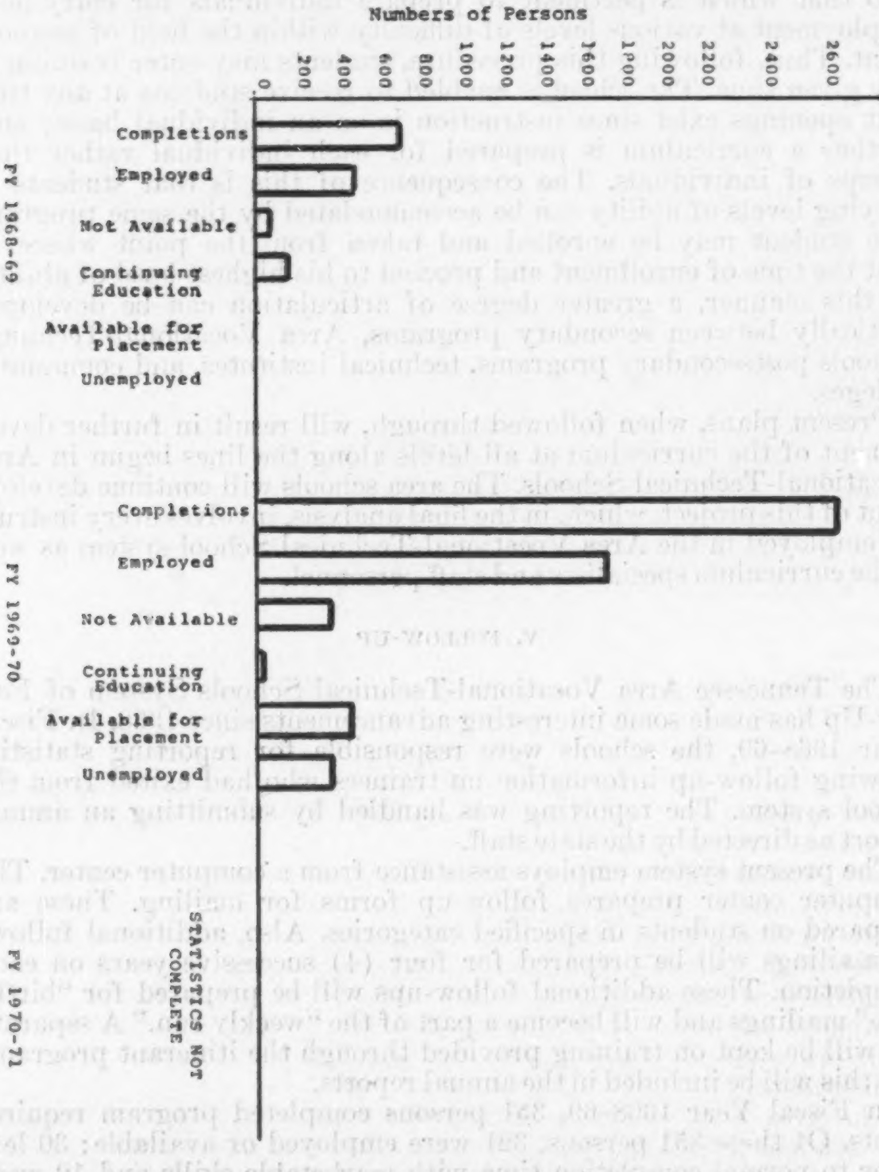
The Tennessee Area Vocational-Technical Schools System of Follow-Up has made some interesting advancements since 1968. In Fiscal Year 1968–69, the schools were responsible for reporting statistics showing follow-up information on trainees who had exited from the school system. The reporting was handled by submitting an annual report as directed by the state staff.

The present system employs assistance from a computer center. The computer center prepares follow-up forms for mailing. These are prepared on students in specified categories. Also, additional follow-up mailings will be prepared for four (4) successive years on each completion. These additional follow-ups will be prepared for "birthdate" mailings and will become a part of the "weekly run." A separate file will be kept on training provided through the itinerant programs and this will be included in the annual reports.

In Fiscal Year 1968–69, 351 persons completed program requirements. Of these 351 persons, 321 were employed or available; 30 left prior to normal completion time with marketable skills and 12 were not available due to entrance into the armed forces, continued in full-time school, or other reasons.

In 1969–70, 2,628 completed program requirements. 2,162 were available for placement. The others were reported as continuing their education, not available for placement due to entering military service, or other reasons. 1,718 were employed in the field trained or related field with only 132 unemployed.

For the follow-up during the present Fiscal Year, 1970–71, the area schools are planning to ask each person who has completed a program of training to submit information concerning employment status, wage rate, and his comments concerning the training received at the school. The questionnaire will be submitted on the birthday of the individual. This will be done through the use of the computer system.



VI. HANDICAPPED AND DISADVANTAGED PROGRAMS

Specific programs for the handicapped are continuing at Nashville, McMinnville, Memphis, Elizabethton, and Knoxville. Approximately 500 trainees are enrolled in these programs at an expenditure of $184,280. These are new programs set up since Fiscal Year 1969.

During Fiscal Year 1969–70, the rationale for determining programs for the disadvantaged was developed. This rationale, developed in two stages, was concerned with evaluation of each school's community and an in-depth look at each program offered.

This first state was developed by utilizing the Tennessee State Plan, Part II, pages 6, 7, 8, 10, 11, 12, 14, and 15. A profile was constructed for each county in which the Area Vocational-Technical School is located. The following items were taken into consideration:

(1) percentage of low income families (2) unemployment rate of civilian work force (3) unemployment rate of youth and (4) school drop-out rate.

Since approximately 40% of all Area School students come from outside the county in which the school is located, the surrounding counties, from which the individual school draws students, were also examined to see if they added to the disadvantaged conditions of the immediate school community.

Information obtained from the first stage was then used to evaluate the student's characteristics obtained for each program. Major factors of educational development tests, grade completion, age, and minority group were combined with supporting factors of sex, marital status, distance from school, etc. to determine a profile for the students by a program. If the profile of the students being served matched the profile of community need, then the program was listed as a program for the disadvantaged. For example: The Athens school community has a high rate of unemployed youth and a high rate of school drop-outs. The student profile for the programs listed reflected a high percentage of youth without a high school education.

It was found that 72 programs in the Area Vocational-Technical Schools could be designated as programs serving disadvantaged youths.

In light of this, it was found that almost $600,000 in instructors salary was being well spent to serve these disadvantaged enrollees.

"ABLE" TEST BATTERY

A contractual arrangement, between the State Board for Vocational-Technical Education and the testing bureau of the University of Tennessee, was entered into for the purposes of identifying, modifying, and expanding offerings in Area Vocational-Technical Schools especially for disadvantaged and handicapped persons. All post-secondary students in Area Vocational-Technical Schools were given the "ABLE" test battery. Norm charts were developed by school and by occupational areas. Also, questionnaires to both students and instructors were used to gain new insights into a "student profile" for each student.

The Area Vocational-Technical Schools are in the process of adding the "student profile" to data already collected. An in-depth correlation study between interests tests, achievement tests, instructor evaluation, student self-evaluation, and work record will now be possible. The results of this study should give a clearly defined identification of the disadvantaged and handicapped students and point-up valid program needs. As this process continues, more finely delineated validations of each input factor will be possible. All student profiles and correlation studies will be accomplished by means of electronic data processing. Both a cumulative and current report will be available at any specified time.

TESTIMONY ON RESEARCH

Research Coordinating Units were established nationwide, primarily as a result of funding by USOE. The Tennessee RCU was started in 1966. Because of the funding limitations and requirements set forth by USOE, activities of the RCU and other research efforts were consistent with objectives set forth by USOE. These objectives were not necessarily consistent with the needs of research and development in vocational and technical education in the State of Tennessee. As a result of these and other factors, research efforts in Tennessee got off to a shakey start. For various reasons, including feast or famine types of funding, the RCU in the State of Tennessee met few of the needs of our State. During fiscal year 1970, the RCU in Tennessee was, for all practical purposes, inactive. Beginning in May of 1970, new staff members were employed to move the program toward directions needed to solve vocational-technical education problems in this State. First efforts centered around the development of an Information Retrieval and Dissemination Network in vocational-technical education. Additional funding for fiscal 1971, although appropriations were released at a relatively late date, made possible the expansion of efforts to begin solving some of the problems in vocational-technical education. Research and development monies have been used to establish a dissemination network of thirteen resource centers established at strategic locations throughout the State. Each of these Resource Centers has been provided with materials from the ERIC System, training programs, and supporting services in order to move some of the results of research off the library shelf to the field and actual use by teachers, administrators and supervisors.

An additional part of this system includes three Regional Research and Development Centers which will complement the efforts of the Central RCU. Regional Offices utilize the resources and materials available at the Regional Resource Centers, to assist teachers to implement new concepts, curricula, teaching methods and techniques and other results of research, in the local classroom. The system is being developed in order that teachers and others at the local level may have immediate access to information and data that they need in order to improve and extend their programs. These regional offices will be connected to the main RCU and to the State Division of Vocational-Technical Education with a teletype system in order that this needed information and data may be obtained with a minimum time delay.

It has been found that the central ERIC System has not been able to respond to teachers' needs completely enough and within the time constraints in which teachers work. The system we have developed with the use of research and development funds has directly served 100 vocational education personnel in local schools. Over 825 titles from the ERIC collection (consisting of 4900 pieces of microfiche) have been requested and subsequently distributed to these people. This, from a system that was implemented just this past December.

Additional efforts of our research in the State are aimed at the development of a management information system which will provide for better program planning and management to improve the total Manpower program in the State. Components of our management system include manpower forecasting data; a data bank of student and teacher information including profiles of all programs and vocational personnel in the State; financial data obtained through the completion of cost analysis studies; key census data; professional personnel development needs and programs, and other information. With this management information system it is felt that a more effective program of vocational-technical education, meeting the needs of the citizens of the State, will be accomplished.

Some research and development monies have been utilitized to implement a Mini-Grant Program. The objective of this program is to provide financial and technical assistance to local teachers, supervisors, and administrators to encourage them to incorporate new and innovative ideas into their on-going programs. For example, some Mini-Grants are used to try out CAI techniques, explore alternative instructional systems, implement alternative methods of teaching shorthand, develop and implement programs for students requiring remedial English and mathematics in order that they may compete successfully in regular programs, complete local community surveys to determine training requirement needs in specific situations, and complete surveys to determine specific training needs for handicapped students. Our research monies, to some extent, are being used to supplement efforts and resources provided by such agencies as Appalachian Regional Commission, Tennessee Valley Authority, Clinch-Powell Educational Coop, Chambers of Commerce, and others.

Some research and development monies are being used to develop curricula in areas of special needs. Workshops aimed at the development and improvement of the competencies of teachers and others to participate in research and utilize research results have been conducted at the State level. Some research monies have also been used to develop a system for identifying research and development priorities for vocational education in our State. The same has been true in the area of curriculum development.

Research monies have been used to encourage other State and local agencies to make appropriate contributions to the total programmatic effort. For example, the University of Tennessee has increased its commitment to research and development in vocational-technical education as has the State Department of Education. Local institutions and agencies have also contributed significant amounts of financial and human resources to solve specific problems.

With additional research funds the State of Tennessee will be able to implement its total program of systematically identifying and defining research and development problems, assuring that the necessary data and information related to these problems, are available, and providing supplemental assistance where needed, to encourage teachers, administrators, supervisors, teacher educators and others, both public and private, to carry out necessary research and development activities aimed at solving problems which exist in our State.

We are at a point now where the State of Tennessee has a need to expand its commitment by approximately ten per cent in the area of research and development to carry out its proposed program and systematically solve problems. With an increased commitment at the federal level of approximately ten per cent, we feel that we will be able to implement a system which will up-date teacher competencies and abilities as well as systematically solve many of the problems related to program development and expansion, all aimed at meeting the needs of individual citizens and taxpayers in our State.

DISADVANTAGED AND HANDICAPPED

Tennessee has made progress toward meeting program objectives by expanding and improving vocational-technical education for disadvantaged and handicapped persons.

During the 1968–69 school year classes for disadvantaged persons were expanded under leadership of the Program Services Section of the State Board staff. A supervisor was assigned to this section and had the responsibility of assisting in the development of training programs for disadvantaged persons. Eighteen new teachers were employed on a full-time basis in the area of related-remedial instruction for disadvantaged persons. Eleven related-remedial learning laboratories were developed and placed in operation. Three skill centers enrolling 161 disadvantaged persons were operated in two metropolitan areas of the state. A work experience program with an enrollment of 30 was conducted in upper East Tennessee. One hundred and four disadvantaged students from the metropolitan ghetto areas were given occupational orientation and citizenship training at the state vocational leadership camp at Camp Clements. New summer classes in Chattanooga for the disadvantaged were organized with an enrollment of 94. An Occupational Emphasis Program was established in one occupational area to serve 165 dropouts. Classes in other localities were conducted as follows:

Service	Number of programs	Number enrolled
Agriculture	3	36
Distribution	5	110
Health	3	3
Homemaking	2	48
Occupational home economics	2	53
Trades and industry	8	149

A total of 1,336 persons were served in disadvantaged classes specially designed to meet their special needs. A total of 399 disadvantaged students were identified as being served in regular programs.

The 1969–70 school year was entered into with new legislation and on-going programs for which commitments were already made. Many secondary programs were found to be serving disadvantaged students to a limited degree. A number of these secondary programs were modified to accomplish the purposes of the 1968 act and still meet the needs of the individuals who were enrolled in on-going programs. The results of these efforts show that 10,717 disadvantaged students were served. There were 260 full-time and 58 part-time teachers involved in teaching these disadvantaged individuals. Of the total number of disadvantaged persons served, slightly less than 7,000 were enrolled at the secondary level. Three thousand two hundred and ninety four students were enrolled at the post-secondary level in the area vocational-technical schools, technical institutes and community colleges. Special secondary summer programs for disadvantaged persons served 2,652. In these summer programs students received skilled training to prepare them for immediate employment, received basic instructional education to prepare for entrance into post-secondary programs and/or engaged in programs for remedial instruction.

Also, during the 1969–70 school year 293 persons were enrolled in specially designed handicapped programs. Seventeen special teachers and 21 aides were employed to serve these 293 students. A number of local education agencies were busy making preparations to carry out plans which involved the establishment of classroom and laboratory facilities and the installation of special equipment for the handicapped.

During the 1970–71 school year some 275 teachers served approximately 12,000 disadvantaged students on the secondary, post-secondary, and adult levels.

Fifteen school systems operated specially designed programs to train the handicapped. This involved ninety-six classes with a total enrollment of 1,190 students. These students were mostly EMR students between the ages of 16 and 18. They were given basic remedial training and semi-skill training. The employment records of those students completing the training averages between 75 percent and 90 percent. This unusual employment record appears to be due to assessing the students and training them for jobs according to their abilities. The employer acceptance has been far beyond expectation. It has been found that there are adequate jobs available for the handicapped student when they are properly trained and when the employer is involved in the training. The vocational training for the handicapped has been a cooperative effort among Vocational-Technical Education, Special Education and Vocational Rehabilitation.

ACTIVITIES OF THE STATE ADVISORY COUNCIL

In January 1969, Governor Ellington appointed a seventeen (17) member Advisory Council which was one of the first four councils in the country to be certified by the Commissioner of Education. The committee held its first meeting on March 14, 1969, and selected as Chairman, Dr. Fred Thornton of Kingsport. They adopted rules and regulations pertaining to the conduct of meetings, and adopted a budget for 1969 and 1970, and authorized the hiring of professional and clerical personnel. On March 28, 1969, Mr. Grant Venn, Assistant Commissioner, informed Chairman Thornton that the budget had been approved.

On August 1, 1969, Mr. William M. Harrison was appointed Executive Director of the State Advisory Council, and he in turn employed Mrs. Carolyn Perkins as secretary for the Council.

In April 1970, the State Advisory Council published its first report to the State Board for Vocational Technical Education in which it listed several concerns and seven specific recommendations to the State

Board. These recommendations were presented to the State Board for Vocational Technical Education which responded to each of the recommendations and stated its intention and plan for carrying out the recommendations made by the Council.

At the fourth meeting of the Advisory Council, held on April 16 and 17 the Chairman appointed a five member Evaluation Committee to develop plans for the annual evaluation and the annual report which is due in the National office on October 1, 1970.

The Evaluation Committee met in Knoxville on May 21, 1970, and agreed that the members of the Evaluation Committee should serve as chairmen of a subcommittee to study each of the five goals as set forth in the guidelines and make their report at a general meeting on July 15. Thus, all members of the Council were involved to some degree in the evaluation. These five subcommittees used various means and methods of collecting data and information concerning the goals that they were studying. These reports were given at a general meeting of the State Advisory Council on July 15 and were consolidated into the Council's first annual evaluation report.

The First Annual Evaluation Report listed twenty-one specific recommendations along with a position statement directed to Congress concerning the Congressional Funding Cycle. These twenty-one recommendations were presented to the State Board at its regular meeting and the State Board directed the State Director of Vocational Technical Education to implement immediately those recommendations that did not require additional expenditures and to implement those recommendations requiring additional expenditures as funds were made available.

Each year the State Plan Committee has reviewed the State Plan for Vocational Technical Education and made specific recommendations for revisions. On February 18–19, 1971 the Council employed Dr. Robert E. Taylor, Director of the Center for Vocational Technical Education at the Ohio State University, Columbus, Ohio, to serve as consultant to the State Plan Committee in its review of the proposed revisions of the State Plan and prepare a report to be read at the public hearing on the State Plan scheduled for June 9, 1971. The State Advisory Council has held a public meeting each year at which the public has been invited to express its views concerning vocational technical education.

In preparing for the 1971 Annual Evaluation Report, the Council Chairman appointed a committee for each of the goals as set forth in the guidelines established by the U.S. Office of Education and Ad Hoc Committee of State Advisory Councils. These committees will report their findings to the entire Council in July, and these reports will be consolidated and made a part of the 1971 Annual Evaluation Report.

In addition to other activities, the Council has contracted with the Research Coordinating Unit at the University of Tennessee for two studies; one dealing with the status of Vocational Education which will answer the question of who is being served, who is not being served, and who is doing the serving. The other study has to do with the image of Vocational Education that is held by those persons in industry who are users of the products of Vocational Technical Education. The results of these two studies will be incorporated into a final report, and will become a part of the 1971 Annual Evaluation Report.

In addition, the Executive Committee of the Council is studying the extent to which previous recommendations have been carried out by the State Board for Vocational Technical Education. This report will, also, become a part of the 1971 Annual Evaluation Report.

The Tennessee State Advisory Council on Vocational Technical Education has attempted to discharge its duties and responsibilities as set forth in the 1968 Amendments and to discharge its duties in an independent autonomous and yet cooperative manner to bring to the attention of the State Board for Vocational Technical Education areas of concern and ideas for strengthening programs in all areas for Vocational Technical Education.

We believe that the combined efforts of this group properly applied to the task of evaluation and policy recommendation can effect changes that will assure the quality vocational programs that are so vital in attracting and keeping those types of industries which provide a desirable economic base for the State of Tennessee, and perhaps more important they can assure that every individual who desires and can benefit from training will be developed to his maximum potential.

PROGRESS REPORT—STATE TECHNICAL INSTITUTES 1968–1971

The state technical institutes have made comparable advancements with those in the area vocational-technical schools in which there are commonalities. Additional improvements, include stabilized instructional programs for two new technical institutes.

As the student enrollment increases, new technologies have been added to more nearly meet the needs of the work force demands of the State. Enrollment progress for the three year period is as follows:

Total enrollment 1968–69, 2,824; 1969–70, 2,536; 1970–71, 3,253.

PROGRESS REPORT—STATE COMMUNITY COLLEGES, 1968–1971

The State's system of community colleges consist of six institutions now in operation strategically located across the State. Three additional community colleges are in various stages of construction. Colleges now in operation have departments of vocational-technical education. These are relatively new institutions, the first one having been opened in 1966. They are, therefore, not all on a full operating basis as of this date.

Technical courses in these institutions are being selected to meet the needs of the area served, but by mutual consent with the technical institutes and the area vocational-technical schools, course duplication is kept to a minimum. The objectives of the vocational-technical sections of the community colleges, as well as the technical institutes, were taken directly from the Amendments of 1968 and applied to the extent necessary for the courses to be offered and groups of persons to be served. The primary objective is to prepare persons for employment in vocational and technical occupations. Courses are designed to apply established technical knowledge and skills to prepare the student for the world of work as a technician or other vocational fields in the area of production, distribution, or services. The secondary objective in the vocational and technical field is to prepare employed persons for gain stability in their present jobs and to prepare for advancement in their present technical or vocational occupation.

As the student enrollment increases in these new schools, new technologies are being added. Evidence of growth in the area of vocational and technical enrollment divisions is as follows:

Total enrollment: 1968–69, 981; 1969–70, 1,936; 1970–71, 2,492.

TEXAS

State Director—John R. Guemple

STATEMENT OF JOHN R. GUEMPLE, TEXAS ASSOCIATE COMMISSIONER FOR OCCUPATIONAL EDUCATION AND TECHNOLOGY AND MEMBER OF THE ADVISORY COUNCIL FOR TECHNICAL-VOCATIONAL EDUCATION IN TEXAS

I. INTRODUCTION

Mr. Chairman and members of the General Subcommittee on Education: As the Texas State Director of Vocational Education, I am pleased to have the opportunity to give testimony about a subject that I feel complete dedication to and some expertise in, vocational education. As a segment of the total educational system, vocational education in Texas has always ranked statistically by category in the top five states. With the passage of the 1963 Vocational Education Act, monies for specified uses became available. Target groups, such as postsecondary students and the disadvantaged, and particular needs, such as construction, office education programs, and curricula materials development were given major importance by the United States Office of Education. Quite naturally, Texas followed this leadership. In like fashion, the 1968 Vocational Education Amendments added programs for the handicapped, new and emerging occupations, occupational orientation, expansion of the use of media. All of these programs and particular needs are doing much to increase the Texas public awareness of the need to assist students in making an occupational choice with options that provide both direction and flexibility in selecting one's life career. If specific objectives are determined as steps toward an established and realistic goal, a student will become motivated toward selecting a sequence of courses that will equip him with cognitive as well as manipulative skills. Because of our commitment to the public school student as an individual and the national leadership toward various target groups through earmarked allocation, Texas vocational educators have accepted their role of leadership. Thus, Texas still ranks statistically by category in the top five states . . . and may I say that these statistics and not programs aimed at solving target population problems . . . exist because of Federal funding with which reports are required from the recipient. How grateful progressive educators are for Federal funding. But is statistical ranking significant or is the educational preparation of one individual the more relevant and important fact?

II. STATEMENT OF TEXAS VOCATIONAL EDUCATION OBJECTIVES

Obviously, the objectives of Texas vocational educators and those of the United States Office of Education are one and the same. Great strides have been made in secondary vocational education (Figure 1), educational research (Figure 2), postsecondary vocational education (Figure 3), vocational education programs for the handicapped (Figure 4), and vocational education programs for the disadvantaged (Figure 5). Most of these programs have been funded through specialized methods of reimbursement to school districts (Figure 6). Recommendations of The Advisory Council for Technical-Vocational Education in Texas are also considered (Figure 7). But are these objectives enough? Several facts are apparent. Vocational education is expensive. Because of inflation and increasing public awareness about the need for vocational education, more funds will be needed to maintain a status quo. In other words, Federal funds for vocational education in fiscal 1972 will need to be increased by at least five percent to maintain our present level of program operation. The same categorical funding must be continued in order to overcome some of the identifiable target group problems or specialized needs of Texas. Vocational education must be removed from the influence of bureaucrats and placed within the realm of educators. If the monies expended on programs and projects that are funded through the Department of Labor, Office of Economic Opportunity, and other miscellaneous governmental agencies were placed in the hands of vocational educators who are operating within the education complex as a segment, many of the charges and counter-charges toward our educational system would not be made because with funding that provides $5,000 for one year vocational education of one student to Job Corps to retrieve a delinquent from the ghettos could just as well retrieve a student from the ghettos through the public school. Imagine if the equipment bought by Job Corps had been *given* to State Directors like myself. What we could have accomplished. In a state like Texas, Federal dollars are matched in a ratio of more than 3:1 by state and local dollars. With the Federal government matching what each state and local education system puts up, consider what could be accomplished. Ladies and gentlemen, consider what would happen if monies were available to collect, process, and disseminate information about what, how many, where, and other data about job opportunities. Let us explore what this effort will require in Texas. Presently, data is collected by teachers and teacher-coordinators, transmitted by the superintendent, validated by field staff, and accumulated by State educational program directors for United States Office of Education reporting purposes. Although this process produces excellent data, we cannot retrieve this data for Texas by school district, county, Governor's Planning Region, Cooperative Area Manpower Planning System (CAMPS), Council of Governments Region, or Educational Service Center.

Texas is at the moment of this writing (April 1971) developing this capability. Hopefully, through this retrieval system, we will be able to compare a specific year (for example, 1973) of data within a specific school district's annual plan with a five-year projection for 1972–73. In addition, 1971 actuals from the USOE reports may also be compared after the fact. Through constant evaluation and the sharing of these comparisons with the school districts, vocational educators in Texas will be able to identify priorities. Through this evaluation, the modus operandi of programs will be changed to eliminate the identified priorities. Perhaps in your wisdom, you distinguished gentlemen of the United States House of Representatives will allocate monies to buy each state a third generation computor along with a high speed printer, magnetic disk with random access capability, and magnetic tapes. With this type of equipment, education could hopefully reduce significantly the present Texas loss of students (about 45 percent) between first and twelfth grades. Please also consider what effect an unlimited amount of equipment and facility construction monies were available. The growth of vocational education depends directly upon three factors: the availability of enough teachers, sufficient facilities, and adequate equipment. Please observe that out of all Federal allocations in 1967–68 (approximately $207 Billion), only $4.5 Billion was expended for education. Of the total Federal educational allocation, only $0.6 Billion or 0.3 percent of the total Federal budget ($207 Billion) was expended on vocational education. But money alone is not the answer.

The continued Federal matching requirements that promote state participation are to be encouraged. Because matching requirements that promote state participation are to be encouraged. Actually, revenue sharing will further complicate educators problems in regard to money as the expenditure of funds will be a totally political decision that may or may not be based upon needs. Because of participation requirements and the resulting stimulation, Texas funds expended on vocational education have grown from $24,000,000 in 1964–65 to about $50,000,000 in 1970–71. As a result of the tremendous growth in vocational education, a need for increased staffing in the United States Office of Education to adequately administer vocational education at the national level. Directly coupled with this is the need to place vocational education in a decision making position in the organization of the United States Office of Education at the Undersecretary level. But is this the complete solution?

III. FUTURE DIRECTIONS

Vocational educators of Texas are convinced that what is presently happening throughout the nation concerning vocational education is only a superficial treatment and solution to the principal societal problem of educators, too many students dropout of public schools. In Texas, present available data indicates that 45 percent do not graduate from high school. Even more crucial is that 22 percent do not enter eighth grade. To add to this burden, only 19 of the 55 who do graduate have been exposed to some form of vocational education. Ironically, only 10 percent complete college from a 100 percent college-bound oriented society. Essentially, this means that 71 percent of our youth, who comprise over 50 percent of our population, do not have a college degree or any form of vocational education exposure. Solution?

I believe that several changes in our present educational modus operandi must occur before significant progress can be made in eliminating our educational ghettos. These changes are:

1. A complete restructuring of our educational system, particularly the curriculum so that what a student learns is practical in that it relates to what is happening at the moment of instruction in the world around the classroom. Abstract instruction is valuable to those capable of profiting from this type of instruction, about 10 to 20 percent of the population in varying degrees of comprehension. Why design a school system for at most 20 percent of our children and inflict the boredom on the other 80 percent because it is good for them?

2. Develop tests to measure more than one type of intelligence ("book learning"). For example, develop tests that will measure the types of intelligence necessary for a girl to design a hairdo as a cosmotologist for another or a boy looking "under the hood" of a friend's car and immediately diagnosing the problem by visual inspection. Even our testing is for the college-bound, but it doesn't determine what the other 80 percent should do.

3. Have a continual dialog with students from all types of environments so that instructional approaches that will attract and appeal to youth from every environment will develop. As a result, every student will complete public school education with a saleable skill and the knowledge that all forces have been brought to bear to assist them in selecting their occupation.

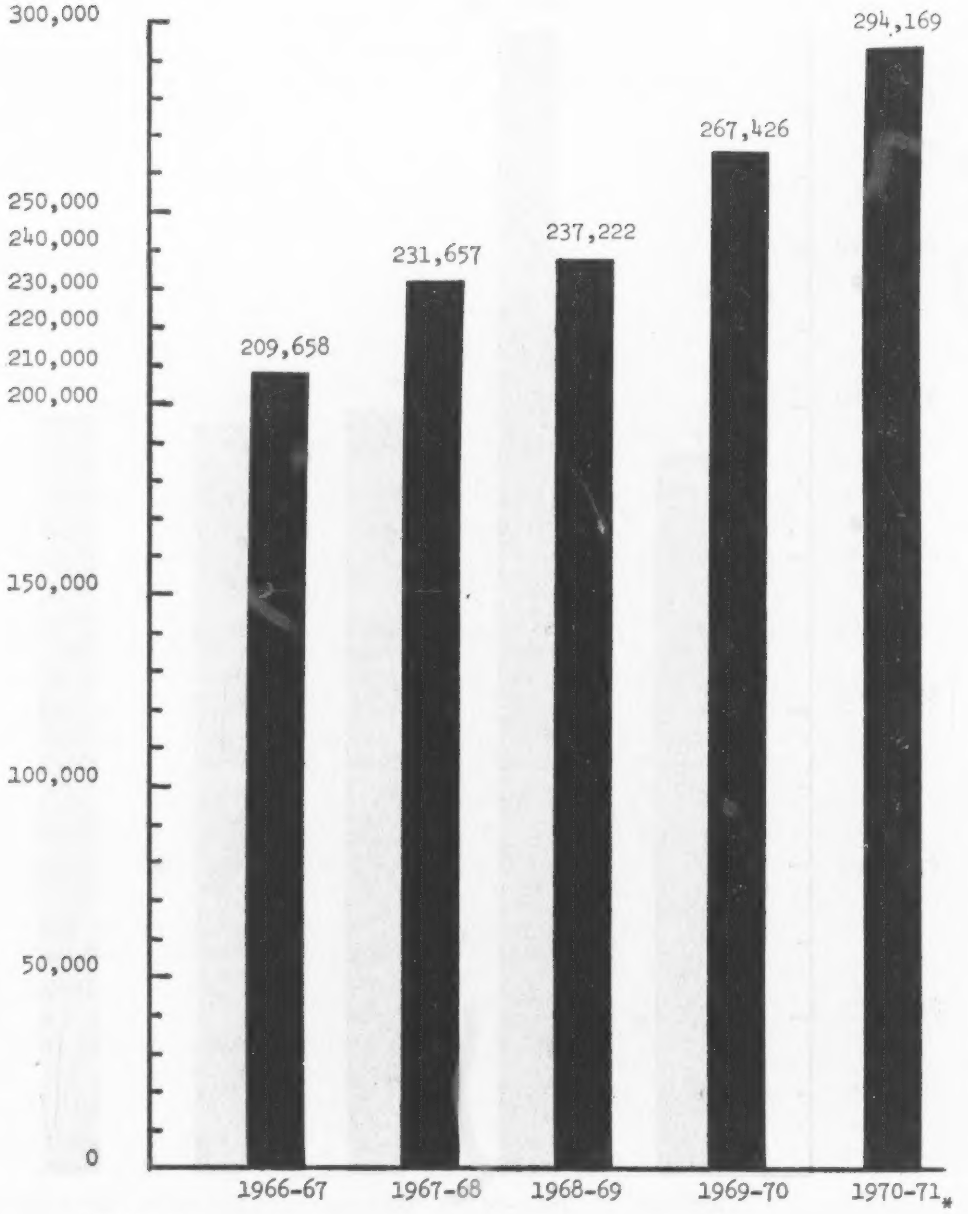
4. Disseminate a massive public information campaign to teach the children and adults of today, as I was taught, that to work with the fullest utilization of one's manipulative and cognitive skills is not only honorable, but highly commendable and rewarding because of self-satisfaction and economic support. In other words, a craftsman is to be held in high esteem, not ill repute.

5. Capture the imagination and interest of all educators in attempting to teach Mary or Johnny what they are willing and able to learn, not what we demand they learn.

6. Develop a "grass roots" interest in the world of work so that everyone understands herself or himself and her or his neighbor better. In this way, we may see more compassion for and interest in doing a good job for the sake of doing a good job.

7. Implementing the recommendations of the Advisory Council for Technical-Vocational in Texas.

How can the Federal Congress accomplish this? If all funds that are being expended on higher education, poverty programs, manpower programs, elementary and secondary education, and many other funds were pooled, educators could use these monies to change the destiny of our public schools from one of obsolescence and exclusion of the majority to one of relevance and inclusion of everyone. What better gift for our children than to change our 1780 Educational System to a 2000 Educational System. Thank you.



*Estimate

FIGURE 1

TEXAS SECONDARY VOCATIONAL ENROLLMENTS

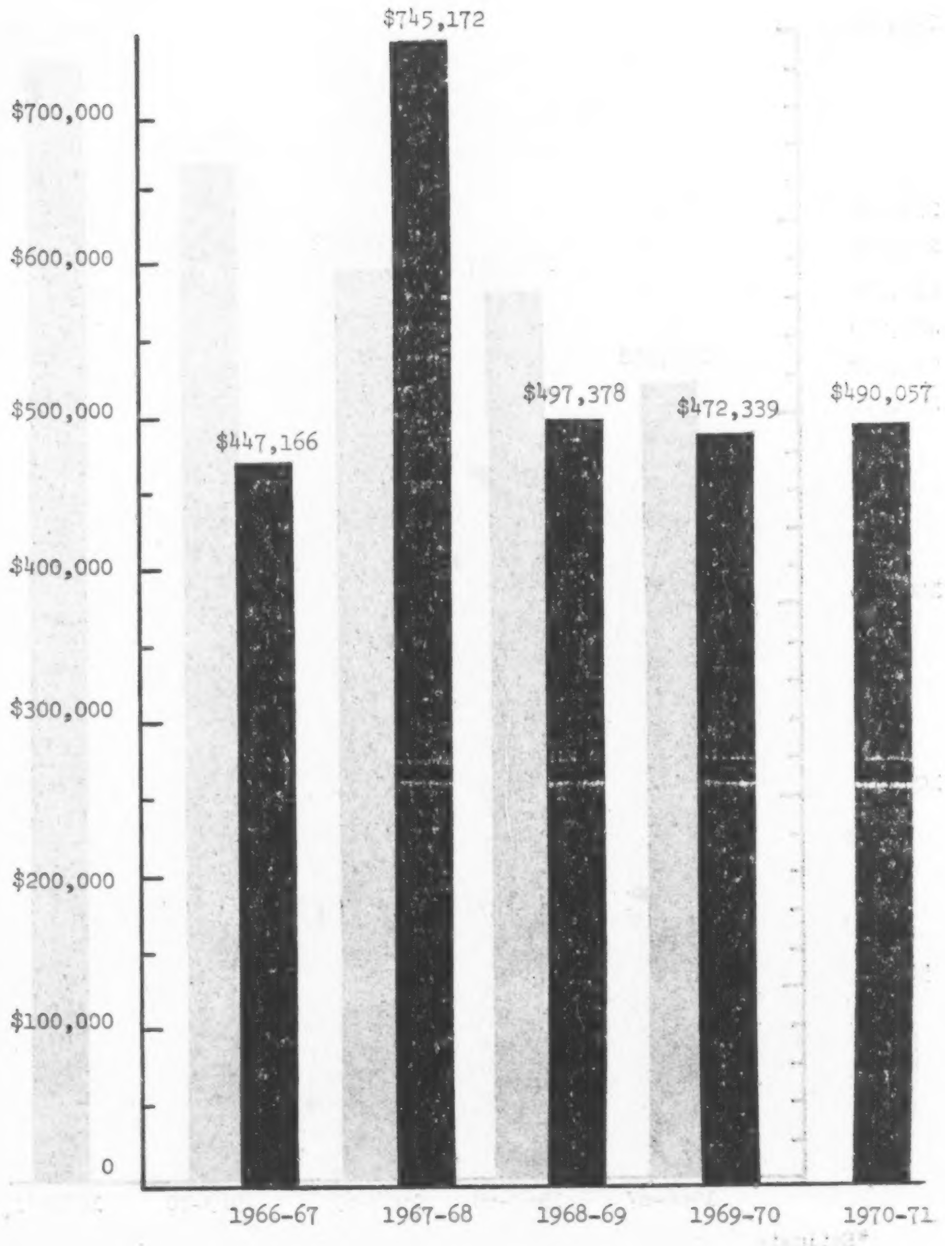


FIGURE 2

TEXAS VOCATIONAL EDUCATION RESEARCH ALLOCATIONS

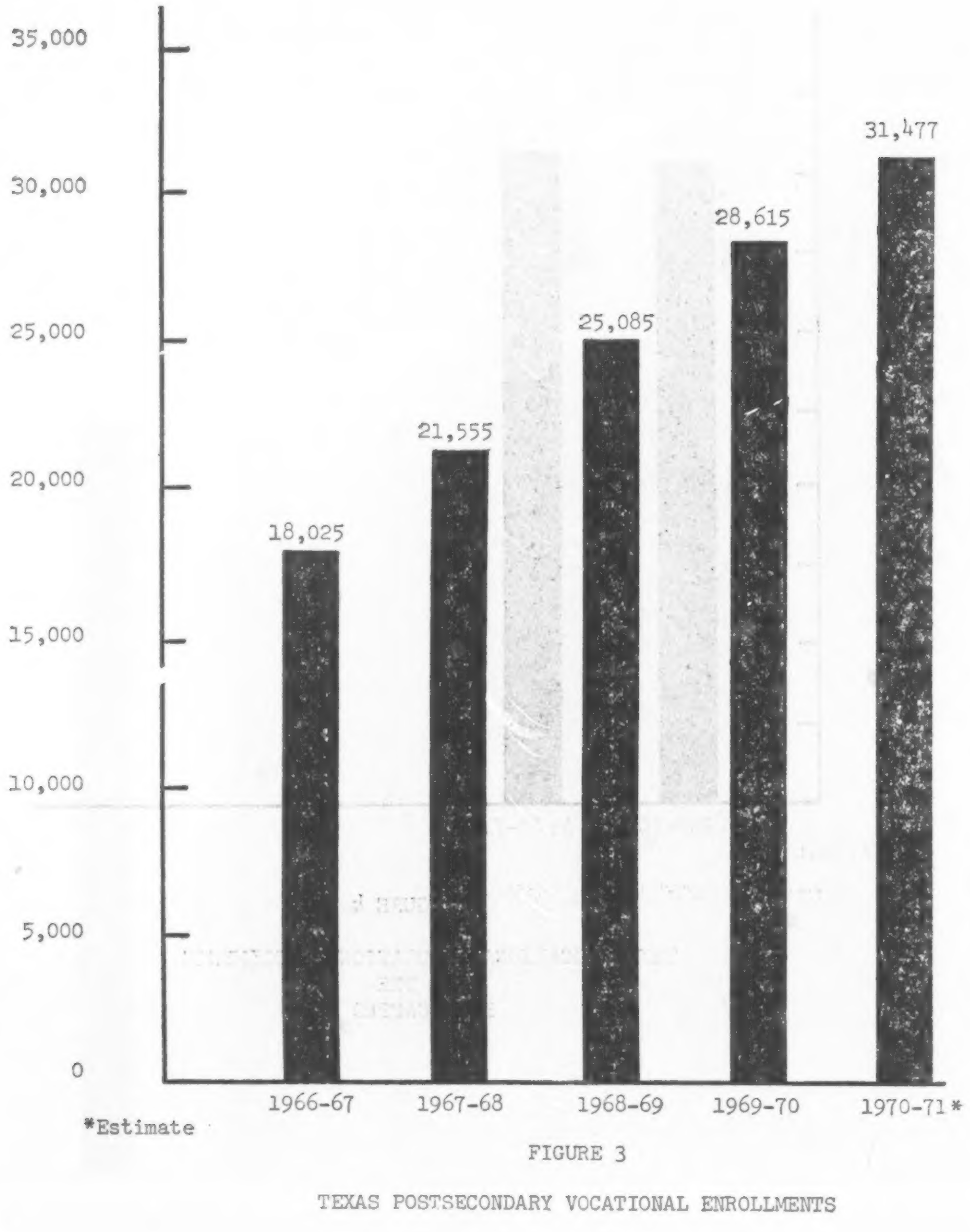


FIGURE 3

TEXAS POSTSECONDARY VOCATIONAL ENROLLMENTS

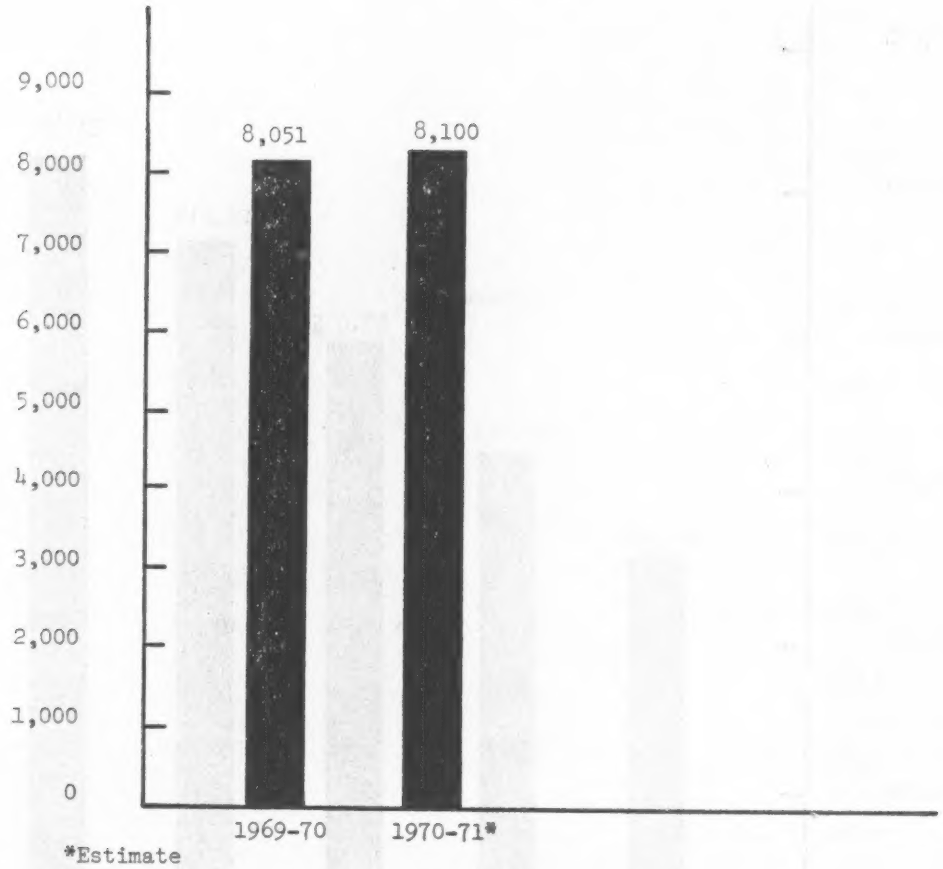
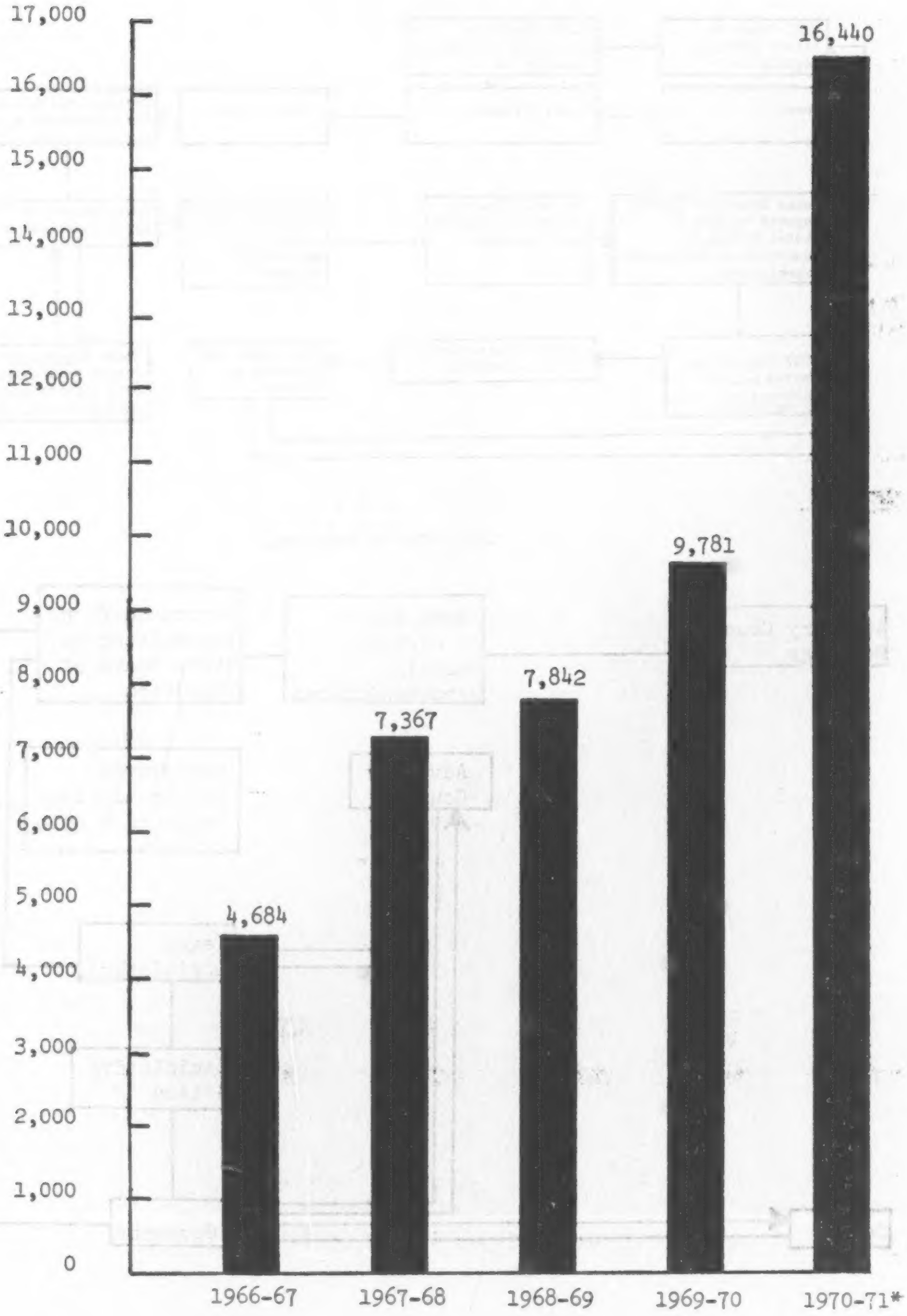


FIGURE 4

TEXAS VOCATIONAL EDUCATION ENROLLMENTS FOR THE HANDICAPPED



*Estimate

FIGURE 5

TEXAS VOCATIONAL EDUCATION ENROLLMENTS
FOR THE
DISADVANTAGED

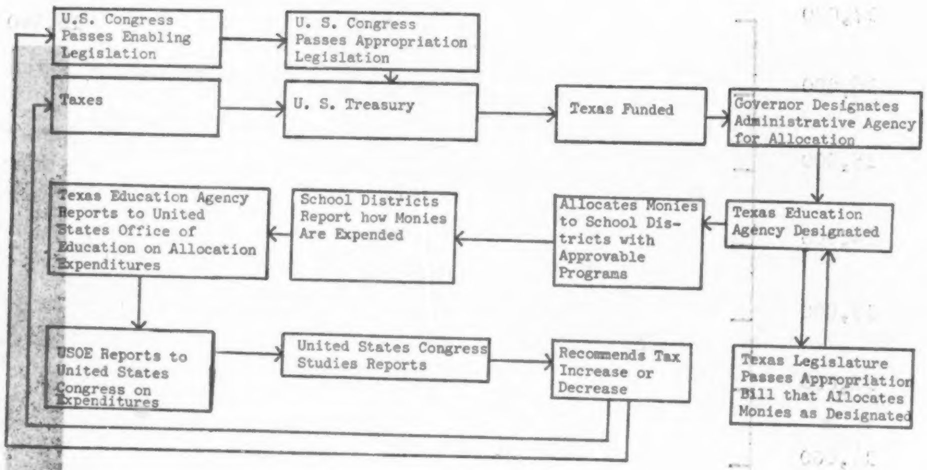

U.S. Congress Passes Enabling Legislation
U. S. Congress Passes Appropriation Legislation
Taxes
U. S. Treasury
Texas Funded
Governor Designates Administrative Agency for Allocation
Texas Education Agency Reports to United States Office of Education on Allocation Expenditures
School Districts Report how Monies Are Expended
Allocates Monies to School Districts with Approvable Programs
Texas Education Agency Designated
USOE Reports to United States Congress on Expenditures
United States Congress Studies Reports
Recommends Tax Increase or Decrease
Texas Legislature Passes Appropriation Bill that Allocates Monies as Designated

FIGURE 6

TEXAS METHOD OF DISBURSEMENT

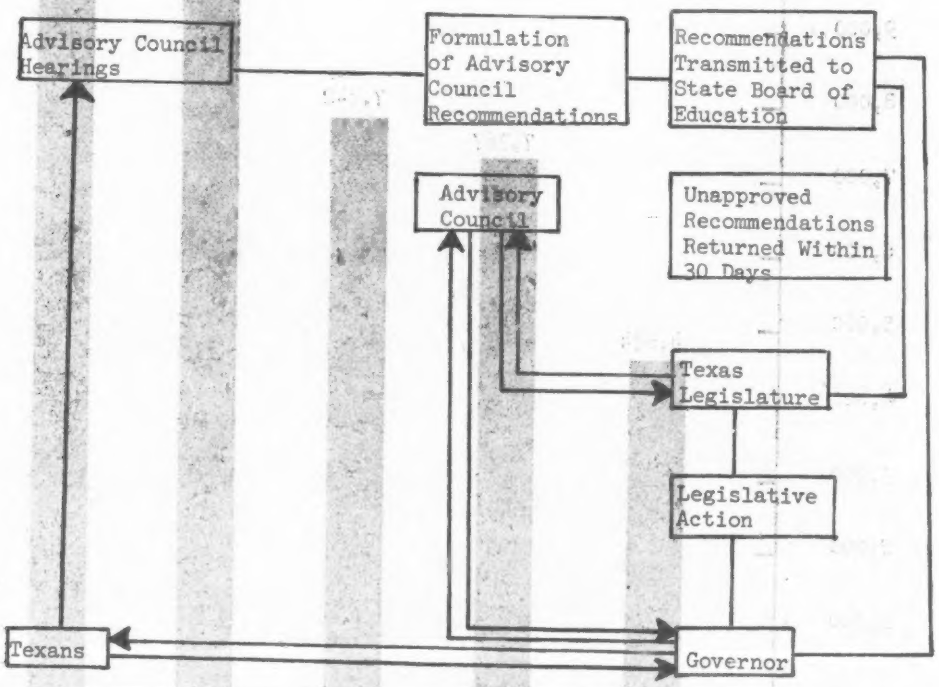

Advisory Council Hearings
Formulation of Advisory Council Recommendations
Recommendations Transmitted to State Board of Education
Advisory Council
Unapproved Recommendations Returned Within 30 Days
Texas Legislature
Legislative Action
Texans
Governor

FIGURE 7

ACTION ON RECOMMENDATIONS BY TEXAS TECHNICAL-VOCATIONAL ADVISORY COUNCIL

UTAH

State Director—Vaughn L. Hall

UTAH STATE BOARD OF EDUCATION
Salt Lake City, Utah, June 16, 1971.

MR. ROMAN C. PUCINSKI,
Chairman, General Subcommittee on Education,
Washington, D.C.

DEAR MR. PUCINSKI: The following information is being offered in response to the specific request in the first paragraph of your letter. Let me comment on these items with reference to the headings mentioned.

1. RESEARCH

We have accomplished a great deal in this area since 1968. Most of this has been made possible with the additional research funds under the 1968 Amendments. Some of these programs are listed as follows:

(*a*) *World of Work*

This project is to provide basic curriculum innovations for the kindergarten to sixth grades so that the general curriculum provided to these students in the elementary program will be all-inclusive and provide information on the world of work. The intent is not to change the educational system, but to provide in the basic elementary educational program a complete coverage of all occupational areas so that students will have an improved image and strengthened background in a total world of occupations.

(*b*) *Project ISP* (*Integrated Shop Program*)

This program provides for clustering of programs for small high schools in the State of Utah. The project combines auto mechanics, agricultural mechanics, and industrial arts into a basic subject unit for exploration and skill development at the high school level. The ninth and tenth grades provide information and general guidance in the areas of woodworking, drafting, power mechanics, and metal work. After having completed the ninth and tenth grades units, students in the 11th and 12th grades concencrate on areas of their skill desires in one of the four subjects as listed. This project is in the third year of experimental and research efforts and is proving highly successful.

(*c*) *Project SUCCESS*

This project was designed to provide comprehensive high school opportunities in large metropolitan high schools. The research phase will conclude June of 1971. The program has been highly successful and we have developed some excellent programs to make high schools more comprehensive and to assist high schools in enrolling the right students in the right training programs, and in placing students on jobs or on to the next step in life in relation to vocational education.

(*d*) *Mobile Office Occupations*

This program provides simulated office experience for small high schools in the State. The high school runs a regular office occupations program and then for short periods of time a mobile office occupations unit comes in and provides simulated office experience to "top off" the learning in the office occupations area. This kind of experience could not be afforded by local schools without this mobile unit.

(*e*) *Mobile Guidance*

This mobile unit provides an itinerate guidance counsellor who visits rural high schools to provide them with the opportunities of understanding, appreciating, and searching out information on career occupations. While the major emphasis is on vocational education, some information is obtained in terms of the total gamut of occupational areas.

(*f*) *Mobile Power Sewing*

We have provided another mobile unit equipped for power sewing for needle trades industry training. This unit is primarily for adult persons and provides instructional programs for immediate employment in the many small needle trade industries scattered throughout rural Utah. This has also proved to be a very beneficial and successful program.

(*g*) *Air Force Materials*

We have purchased, with the assistance of the Aerospace Education Foundation, Air Force curriculum materials to be used in the public education sector. It is estimated that we have purchased approximately $2 million worth of instructional materials including sound films, software materials, TVI guides and instructional materials, and some limited circuit boards. The $2 million is the estimated cost to develop film, reproduce, and put together the total curriculum package. In a State the size of Utah, such a project could never be accomplished without the cooperation of the Aerospace Education Foundation and the Air Force. Our State was a pilot State in this effort and we have purchased additional films and materials from the Air Force based on this initial program. We are also participating in a special in-service program for instructors. This workshop is sponsored by the Aerospace Education Foundation with a grant from the U.S. Office of Education. This, likewise, should prove very beneficial in training instructors in the public school sector in the development and use of behavioral objectives in the curriculum planing, development and use.

In addition to the items mentioned above, we have had numerous small studies and small research grants to assist in developing information on added cost, area school development, follow-up studies, etc. None of this would have been possible without the vocational education funds made available through the 1968 amendments.

2. POST-SECONDARY EDUCATION

The State of Utah developed its vocational education programs different from any of the other states. Many years ago, when area schools were first developed, they were developed at a post-secondary level.

About the only subjects offered were agriculture and home economics. Since that time, the State Board for Vocational Education has continued to fund post-secondary education at approximately 50% of the federal vocational education money. This has provided for expansion and enlargement as well as continuation of post-secondary programs.

3. EDUCATION FOR THE HANDICAPPED

With funds made available through the 1968 Vocational Education Amendments, support has been provided for two sheltered workshops through the State, one of them being initiated within the past several years, to take advantage of this support through vocational education. The other program was started under rehabilitation funds and has been partially supported by vocational education funds. In addition to the two specific programs, individual handicapped students have been assisted in being able to obtain vocational education training in their regular school setting. Only the added cost for training these individuals has been used under this program, but it has been made available to many students who would otherwise have difficulty in successfully completing the programs.

PROGRAMS FOR DISADVANTAGED

We have provided assistance for special programs for disadvantaged students. Some of this has been provided as students have been enrolled and trained in regular vocational programs. The assistance provided has been in tutoring, special facilities, and special equipment to enable the disadvantaged students to progress and continue successfully in their programs. In addition to those in regular programs, we have provided assistance and support for several special programs throughout the State. We have supported a disadvantaged program for heavy duty equipment operators. We assist the students to gain skills necessary to pass a GED test in coperation with an Operating Engineers program, so they can be accepted in the apprenticeship indentured program. This has been provided for two and one-half years and will be continued. We have also provided a special program for Central City black students to provide them with the necessary skills and training for employment. Likewise, several special programs have been provided for Chicano youth to provide them with the necessary skills and general education support for success in a vocational program.

4. METHODS OF INTRASTATE DISTRIBUTION OF FUNDS

The State Board for Vocational Education has provided funds to post-secondary schools and school districts under a formula—approximately 50% each on the basis of information required by the Federal Vocational Education Act. Funds distributed to the local educational agencies are basically from the Part B funding source. Other funds (special categorical funds) are made available on a special program basis submitted by local educational agencies and funded on the basis of meeting criteria, determination of need, etc.

5. CONTRIBUTIONS OF STATE ADVISORY COUNCIL

The State Advisory Council, in the past two years, has been instrumental in strengthening the image of vocational-technical education by the use of television, radio, publications, talks, and public hearings. The State Advisory Council did not function fully until it obtained the services of a full-time executive director to support the efforts within the State. The State Advisory Council is very effective in gaining the support of the State Legislature for additional State funds for the operation and maintenance of vocational-technical education.

An area of concern is in relation to the many agencies attempting to provide remedial service or correctional service for students who have difficulty in the regular school setting. It would be our suggestion that Congress provide state boards for vocational education with sufficient funding to adequately support the development of programs K through 15 to provide students with opportunities in vocational education, thereby drying up the source of school dropouts, delinquency, and students who are not prepared to enter any labor market. Guidance and counseling also need tremendous strengthening and program development so that the proper students may be enrolled in vocational training programs. One of the greatest needs in our State, we feel, and one for which we have submitted a proposal to the U.S. Office of Education, is in relation to a complete articulation program, K through 15. We feel that we have many bits and pieces of successful productive vocational education programs. We also feel that on a regional basis with support by the States in the U.S. Office—Region VIII area—we could provide a complete articulated and comprehensive program for students in the total education system. It would be highly desirable if this program could be funded, or a similar one funded which would provide the kind of total program which we think would be beneficial.

I hope this information will be helpful. If I can be of additional service do not hesitate to call on me.

Sincerely yours,

VAUGHN L. HALL,
Deputy Superintendent Adult,
Vocational and Rehabilitation Services.

VERMONT

State Director—Cola D. Watson

STATEMENT OF COLA D. WATSON, VERMONT STATE DIRECTOR OF VOCATIONAL-TECHNICAL EDUCATION

Mr. Chairman and Members of the Education Subcommittee: I am Cola Watson, State Director of Vocational-Technical Education in Vermont. I appreciate this opportunity to appear before your subcommittee to inform you of developments in occupational education in my state which have resulted from passage of the Vocational Education Act of 1963, particularly as amended in 1968.

Vocational education in this Nation historically has been an outstanding demonstration of a true Federal, state, and local partnership in education. The Federal Acts have identified and established national goals and priorities in occupational education while the state and local educational agencies have considerably overmatched each federal dollar in developing and implementing programs to achieve these goals. Thus Federal appropriations for vocational education, rather than supplying major financial support for program development, have motivated and stimulated state and local educational agencies to provide a strong financial commitment to improved programs of occupational education.

This is well illustrated by the provision of the Vocational Education Acts of 1963 which for the first time allowed the use of Federal funds for construction and initial equipping of area vocational facilities. Prior to this time in my state, the development of vocational facilities was entirely dependent upon the initiative of local educational districts. Programs were established according to local interest and ability to finance facilities. Consequently, some communities in the state were able to provide reasonably comprehensive vocational education offerings to their residents while in many other communities no vocational education opportunities were available. With the motivation provided by the availability of Federal vocational funds for this purpose a plan was developed to establish a statewide system of area vocational centers so located that any individual in the state would be no more than fifteen miles distant from such a center. The area vocational programs were established as components of comprehensive high schools so that the total education needs of all enrollees may be effectively met. Facilities were planned to be adequate to provide a wide variety of occupational education programs for secondary, postsecondary and adult enrollees. With the allocation of $1,175,000 of federal funds to initiate construction of these area vocational facilities the state of Vermont, since 1965, has appropriated and allocated over $20,000,000 to complete the fifteen area vocational centers needed to establish the statewide system. Twelve of the centers will have been completed and have programs operational by September 1971. One more will be operational by September 1972, another in September 1973 and the remaining one will be completed soon thereafter. In addition to providing funds to construct the area vocational centers the state is annually providing funds to pay one-half of the tuition and transportation costs for students from surrounding schools to enroll in area vocational education programs. This amounts to about $350,000 annually. Thus, federal vocational education legislation initiated a course of action resulting in a complete change in the delivery system of vocational education in the state. In a short period of time it has brought comprehensive vocational education offerings close to any person in the state contrasted to former conditions where less comprehensive programs were available only in selected locations. All of this has been accomplished with a minimum of Federal investment.

The Vocational Education Amendments of 1968 have resulted in some significant changes and developments in vocational education in the state. Implementation of many of the new features included in the 1968 Amendments was made very difficult because of the exceptionally late appropriation of federal funds in FY 1970. Many program plans were made but because of lack of assurance of funds program implementation was delayed at least a full year. Some local school district personnel with innovative ideas lost faith in the process and it has taken additional time to restore their confidence and gain active participation.

Even though the operational time span is short, I consider the following programs, services and activities specified by the Vocational Education Amendments of 1968 to be making a constructive impact on vocational education in Vermont:

1. Program planning. Systematic and comprehensive program planning as called for by the Act necessitates the collection, analysis, correlation, and evaluation of pertinent information from many sources. The setting of program priorities in relation to needs and resources must result in increased effectiveness and efficiency. Every local school district offering vocational education as well as the State Department of Education, has annually developed a comprehensive plan for vocational education. Many advisory personnel as well as the general public have been given opportunity to assist in developing the plans and to react to them. It is recognized that planning is a continuous process and that one is always seeking more complete and accurate data upon which to base program decisions. Mandatory annual planning accentuates this need.

2. Programs for the disadvantaged. It is evident that vocational education within the school systems of Vermont has for years been serving many students who have been educationally and socioeconomically disadvantaged. However, it is only since passage of the 1968 Amendments that emphasis has been placed on identifying the magnitude of the need and designing special programs or program features to meet the needs of these individuals. It has been determined that 19.7% of the disadvantaged, aged 14–17, are enrolled in vocational education. A large portion of that number lives in the identified economically depressed areas of the state and are in need of special

services in order to benefit from vocational education. Special types of programs which have been developed to meet the needs of the disadvantaged are:

a. Vocational education program, with cooperative vocational features, for students at the Weeks School at Vergennes. This is a school for juvenile delinquents.

b. Montpelier Educational Facility. This is an alternative school (storefront) co-sponsored by the Montpelier School System to meet the needs of dropouts and identified potential dropouts. The Facility provides occupational counseling, arranges for cooperative work experience and provides related instruction.

c. The Harbor Plan at Bellows Falls. This is an alternative education program sponsored by the public school system. The vocational education component of the program is similar to that of the Montpelier Education Facility.

d. Occupational work experience programs at Barre, Hyde Park, and Brandon. These programs are designed for individuals who are at least one year below grade level and from two to four years below reading level. Instruction is given in an integrated self-contained classroom setting with emphasis on individualized instruction, remediation, occupational evaluation, orientation and exploration (in school laboratories), and with cooperative work experience in the last year or two of the program.

e. Education for Construction Trades. This program is operated by an area vocational center and a Community Action Agency for out-of-school N.Y.C. trainees. Trainees receive counseling, related instruction, and work experience in building construction on the job.

f. Remedial Reading for Auto Mechanics students at Newport. This program is designed to assist individuals to raise their reading ability to a level necessary for job competence in this area. This section of the state has a high percentage of bi-lingual (French) population.

g. Pilot Adult Programs for the Disadvantaged. A portion of the funds available for adult vocational education this year was set aside to be used on a 100% basis for programs specifically designed to meet the needs of the socio-economically disadvantaged. Programs were offered in consumer education, welding, auto mechanics and new car setup, and a concentrated training program on income tax reporting for agency representatives who assist low income persons in this matter. The programs were considered successful enough in meeting their objectives so that funds will be set aside for similar purposes next year. Most of the present special programs for the disadvantaged emphasize remediation. It is expected that successful program techniques and features tested in these special programs will be incorporated into Part B state vocational education programs so that these programs can be more successful in initial preparation and thus reduce the need for remedial programs.

3. Programs for the handicapped.

It is estimated that about 2% of the student population in Vermont is mentally handicapped.

Estimate of Current Number of Handicapped in the State Vocational Rehabilitation eligible 14–17 year age group______	1445

Special Education Needs:
Secondary—

Educable	705
Trainable	70
Deaf	48

Priority has been given to the development of facilities and programs for the educable metally retarded, Level IV, as a part of the program at area vocational centers throughout the state. These facilities consist of classrooms and occupational laboratories suitable to provide diagnosis and evaluation of occupational capabilities, basic skills training in a wide range of occupational areas, and related instruction. These programs have been developed and are supported cooperatively by the Division of Special Educational and Pupil Personnel Services, the Division of Vocational-Technical Education and the area vocational centers. The facilities are also available to vocational rehabilitation clients.

These diversified occupations programs will be operational in ten of the fifteen area vocational centers by September 1971. Two programs have been developed in the state to provide occupational education for the trainables to prepare them for participation in sheltered workshops.

A cooperative program has been developed with the Vermont State Hospital to train work supervisors so they may provide more effective and functional on-the-job training for patients prior to release from the hospital. The Brattleboro Area Vocational Center and the Austine School for the Deaf have been assisted in developing an occupational education program for the hearing handicapped. Students receive occupational orientation and exploration and related instruction at the Austine School and enroll in appropriate occupational training courses on a half-day basis during their junior and senior years at the Brattleboro AVC. These services are provided by a staff member of the Brattleboro AVC. Deaf students thus learn occupational skills in a hearing situation which more realistically prepares them for a job.

In many cases occupational training equipment has been modified so that it can be successfully operated by the physically handicapped.

4. Postsecondary occupational education programs. The only public institutions offering associate degree programs in occupational education in the state at present are Vermont Technical College, the School of Allied Health Sciences at the University of Vermont and the Associate Degree program in Nursing at Castleton State College. All of the federal funds appropriated under the Part B set-aside for postsecondary education are used in the one year postsecondary practical nurse education program. The state is assisting two accredited schools of practical nurse education and starting next year will be assisting a third school. The two schools enrolled 160 students last year and it is expected that the third school will enroll and additional 50 students next year.

A Vermont Community College System was established by executive order under an O.E.O. grant to determine the feasibility of offering varied postsecondary programs in a portion of the state using existing educational facilities. The system has no program funds but will attempt to solicit and coordinate funds from various sources to establish programs. It is too early to assess the success of this effort. There is a well-recognized need for a variety and a relatively large number of postsecondary programs in occupational education in the state. There are 34,755 individuals in the 18-21 age group in the state. Only about 9,000 of these are enrolled in postsecondary programs of any kind. There is a great need for Federal assistance for this level of occupational education and strong support is given to passage of H.R. 7429.

5. Research. Top priority in research has been given to the development and application of a comprehensive continuing system to obtain and analyze data on the employment patterns of students who have participated in vocational education and have graduated or otherwise left high school. This data is needed for program and budget planning at local and state levels. A project has also been designed to develop and test the validity of a system for recruiting participants for vocational teacher education. A proposal has been submitted to the U.S.O.E. for the development and evaluation of a statewide model career guidance system for the state of Vermont. However, the project has not yet been funded.

6. Exemplary programs. Considerable attention has been given to the development of guidelines, project priorities, and evaluation plans for exemplary programs. The types of programs which have been planned or operated include: career development programs—occupational information, orientation, and exploration—for elementary and junior high school grades; short, intensive job training programs, such as, a capsule program to train hotel-motel aides, a summer building trades program, and a summer program to train child care aides; development of decks of aperture cards (Vermont VIEW Deck) of job information to be used for career guidance; programs for individualizing instruction using audio-tutorial techniques and office practice simulation. It is anticipated that the results of many of these programs will have a significant impact on the state vocational education program when replicated.

7. Cooperative vocational education programs. The need for cooperation between business and industry and the schools in providing functional vocational education has been recognized for a long time. One of the early cooperative vocational programs in the nation was the Cooperative Machine Shop Program developed by Springfield High School and the machine tool industry in Springfield, Vermont in 1913. However, it has taken the impetus provided by Part G of the 1968 Amendments to bring about widespread development of cooperative vocational education in the state. In the two years that funds have been available to operate these programs twenty new programs have been developed enrolling 259 students. A total of 235 employers are cooperating in the program. It is expected that this program feature will rapidly spread throughout the state.

8. Distribution of Part B Funds. Until passage of the 1968 Amendments local school districts had been reimbursed from federal and state vocational funds on a uniform percentage basis throughout the state. Presently grant awards are made based on a formula which takes into account the ability of the locality to support vocational education, local tax effort, manpower needs and job opportunities,

vocational education needs and excess costs incurred by the district. This process has resulted in an apportionment of the available funds according to financial need. State and local financial resources are being seriously strained to provide the needed development and maintenance of state vocational education programs (Part B) and additional federal funds are needed. At present state and local vocational funds overmatch federal funds in Vermont at the rate of 2.81 to 1 for annual program operation. In the construction and initial equipping of area vocational facilities state funds are overmatching federal funds at the rate of 17 to 1. This level of funding far exceeds the matching requirements of the 1968 Amendments and thus indicates that the level of federal funding is not keeping pace with the needs of vocational education in the state.

9. Consumer and Homemaking Education. Since the enactment of the 1968 Amendments all school districts in the state which have requested financial assistance for homemaking programs have submitted local plans or proposals indicating inclusion of units or courses in consumer education. There is continuing emphasis on consumer education in all secondary and adult programs. In those consumer and homemaking programs in the state which are financially assisted state and local funds overmatch federal funds at the rate of 16 to 1. Other programs are totally financed from local funds. There is need for a much higher level of federal funding for these programs.

10. State Advisory Council. The Vermont State Advisory Council for Vocational-Technical Education as an agent independent from the Department of Education has been able to identify problems and to act as a catalyst in initiating the changes necessary to provide solutions to those problems. An additional state staff member to formulate a career development problem in the state has been appointed as recommended by the Council. Council members participated in redefining and upgrading this position as well as defining career guidance at the local level. The Council gave further impetus to redefining the status of the local area directors of vocational education. This will result in more equal and better educational opportunities for the students.

As industrial and business leaders in the state, the Council members have started to make school administrators and others conscious of vocational education as a part of each child's total education.

The progress achieved during the past year and one half can be attributed to the independent status of the Council. However, further progress could have been attained by financial independence. Much time and effort has been expended in learning proper procedures and justifying picayune expenditures. Full funding as well as advanced funding is a necessity for economical and effective operation of the Council.

11. Manpower training. The vocational education program in Vermont, as in other states, has the facilities, equipment, and trained personnel to provide effective and efficient manpower training programs. It is in the state and national interest to make the greatest use possible of these resources.

12. Regional cooperation in vocational education. Although not funded under the authorization of P.L. 90-576 there has been a signi-

ficant increase in planning and development of program features in vocational education on a regional basis in order to take advantage of efficiency and effectiveness in the use of resources. Such programs and activities as the following have been developed:

a. Tri-state Vocational Education Project (Maine, New Hampshire, and Vermont), funded by the New England Regional Commission and administered by the New England School Development Council. Pilot schools to develop and test occupational information, orientation, and exploration programs in grades 7 through 10 have been established.

b. Development and organization of the New England Regional Center for Occupational Education (NERCOE). Initially funded by the New England Regional Commission.

c. Tri-State Curriculum Project (Maine, New Hampshire, and Vermont). Funded by NERCOE. Emphasizes the development of a unitized curriculum and statement of behavioral objectives for vocational programs to allow for more individualized instruction.

d. Holding tri-state (Me., N.H., and Vt.) meetings of state vocational educational staffs to consider common concerns and to identify areas in which the states may cooperate in program planning and development.

13. Service by the U.S. Office of Education. The establishment of the Region I Office of U.S.O.E. has significantly improved technical and professional services in vocational and technical education to the state of Vermont. Although the office has never been adequately staffed those on the staff have been knowledgeable of the state program and its needs, technically capable, and readily available to provide service to the state. Continuation and expansion of this service is needed.

In conclusion I would like to focus on some concerns in vocational education which I think must be treated in Federal legislation.

Functional planning in vocational education requires the most accurate information available on needs and resources. As an aid to planning in occupational education Federal legislation should provide for:

1. Adequate funding to the Department of Labor to make comprehensive surveys of manpower needs and job opportunities, and to make short range and long range projections of these needs on a national, state and county basis. To compile the data in such form that it can be used directly by educational agencies for the development of occupational education programs to meet the needs.
2. Advance appropriation of funds for vocational education.
3. Continuing authorization of appropriation of funds for those types of vocational educational programs which must be maintained on a continuing basis to meet vocational education needs.
4. Funding of vocational education programs at a level which will, as nearly as possible, meet the matching conditions of the Act.
5. A material increase in the funding level for postsecondary occupational education programs of less than the baccalaureate degree level.
6. Increased appropriations of funds for career guidance and career development programs at the elementary and junior high school levels.

7. Continued and increased funding for the workstudy program.
8. Increased emphasis on vocational educational personnel development programs.

Even though two years is too short a time to develop and effectively evaluate new program development and emphasis it is evident that substantial progress has been made in the state to align program development in accordance with the established national goals for occupational education.

The appropriation of Federal funds in the form of categorical program aid is effective in meeting national occupational education goals.

Your committee is, therefore, respectfully requested to recommend extension of the provisions of the Vocational Act of 1963, as amended in 1968 (P.L. 90–576), with the added feature of one year advance appropriation of funds, and with provision for continuing authorizations for appropriation of funds for Part B, Part F and Part G programs, and Part A, Sec. 102(c)—Advisory Council.

VIRGINIA

State Director—George L. Sandvig

STATEMENT PREPARED AT THE REQUEST OF THE GENERAL SUBCOMMITTEE ON EDUCATION

Mr. Chairman, I appreciate this opportunity to appear before you and other members of this Committee to assess some of the efforts made in Virginia since the passage of the Vocational Amendments of 1968, with particular emphasis on research, post secondary education, and education for the handicapped and the disadvantaged. Also included is a statement regarding our method of reimbursement to school divisions, some points regarding contributions by the Virginia State Advisory Council, and some suggestions regarding Federal law and the administration of vocational education, including national policies that would be beneficial to vocational education.

May I state at the outset that we, in Virginia, were thrilled and most grateful when the 90th Congress passed, without a dissenting vote, the 1968 Amendments to the Vocational Act of 1963. We felt that this bill expressed an unprecedented vote of confidence in vocational education. During the past seven years, since the passage of the 1963 Act, the total enrollment in all phases of vocational education in Virginia increased from 137,111 to approximately 258,000 (nearly doubled).

However, as we look to FY 1972, we are very much dismayed that funds requested by the President for vocational educational purposes are less than one-half the amount authorized, and approximately $60 million less than the 1971 appropriations. If the President's Budget is approved by the Congress, it would mean that, for the first time in 50 years, there will be no Federal funds specifically earmarked for vocational education. In effect, the President's proposals, if approved by Congress, will virtually eliminate the 1968 Vocational Amendments.

We feel that it is very important that new legislation provide funds for the expansion of vocational education at a substantially increased level, and we will appreciate any efforts that can be made by your Committee on behalf of the continued expansion of vocational education in all areas.

The following are references to our efforts in Virginia as they apply to those special areas of vocational education which were specified in Mr. Pucinski's recent letter:

1. Research—Since the appropriation of funds under Section 3, of the Vocational Amendments of 1968, seven (7) research projects have been approved, totaling $259,733.00. The following are examples of some that are now in operation or will be in the near future:

A. An Evaluation System for Vocational Education in Virginia (This is an umbrella project designed to evaluate the total of vocational activities in Virginia.)

B. Testing of Model for Evaluation of Secondary School Program of Vocational Education in Agriculture

C. A Pilot Information Diffusion/Utilization Model Seminary for Distributive Education Teacher Coordinators

D. Development and Evaluation of a Program Designed to Teach Consumer Education to High School Home Economics Teachers, Using Closed-Circuit Television as the Transmission Medium

E. Development of an Instructional Resources Center for Distributive Education in Virginia

F. Research and Develop a Master Plan for the Identification and Accommodation of Disadvantaged and Handicapped Students within the Virginia Community College Vocational Education Programs

G. Development of a Computerized System to Serve the Vocational Education Program of Loudoun County

In addition to the above, plans are being made to provide a Research Coordinating Unit in the Vocational Division of the State Department of Education in cooperation with the Division of Educational Research and Statistics of the State Department of Education, using funds under Part C of the Vocational Amendments of 1968.

2. Post Secondary and Adult Education—Over 400 post high school teachers are currently serving 13,007 students through the public schools, the community colleges, and the four-year colleges which provide two year programs in occupational education. This represents an increase of approximately 3100 students being served in FY 1971. However, there is a need for providing training for 1200 additional fulltime post high school students, and an additional 45 teachers of occupational programs. Present funding would not allow for these additional teachers.

In addition to the post high school programs, there are more than 91,000 adults attending evening and part-time classes this year, with 60,000 adults who are available for such training, but for whom there is no opportunity due to lack of State and Federal funds for reimbursement to localities.

3. Special Programs for the Disadvantaged—Under Section 102B, of the Vocational Amendments of 1968, provision was made for special programs for the disadvantaged who were identified as having academic, socioeconomic, cultural, and other handicaps that prevent them from succeeding in the regular vocational program. Since localities were notified on May 8, 1970, of the availability of funds for this program, 36 projects in localities have been approved, and are in operation. Many of these programs are being conducted in areas of high unemployment where high dropout rates have been recorded.

Consumer and Home Economics programs are on-going in all of the economically depressed areas.

4. Programs for the Handicapped—During the present fiscal year of 1970-71, programs for handicapped youth and adults are being conducted in eleven Virginia schools and institutions, including State hospitals and rehabilitation centers. Nine of these programs have been established since July 1, 1969, through funds available under Part B of the Vocational Amendments.

Planning is being done for additional pilot programs at the high school level in cooperation with the Special Education Service of the State Department of Education.

It is also anticipated that we will be cooperating with programs that will be co-sponsored by the State Division of Vocational Rehabilitation.

5. Method of Reimbursement to School Districts—Under the basic program provisions in Part B, we have established a distribution formula for vocational funds that takes into consideration six factors, including wealth per pupil, per capita income, percent of unemployed, percent of high school dropouts, manpower needs, and cost of vocational education.

It provides that those local school divisions with the greatest need, according to the above six factors, receive the larger percentage of vocational funds. Under the other parts of the Amendments, programs have been funded within the percentage amounts indicated in the law. Special programs for the disadvantaged, exemplary, and cooperative 100% reimbursement; research 90% reimbursement; and work-study 80% reimbursement.

6. Contributions Made by the State Advisory Council—a. Completed one annual evaluation which focused on employment opportunities within the State, and a determination of what vocational programs should be provided to train individuals for job opportunities. Outlined the effects the Vocational Education Amendments of 1968 had upon the State in the year 1969–70.

b. Through public hearings and contacts in local school districts, encouraged the acceptance of responsibility for planning vocational education programs that meet local needs; also including the occupational needs of all persons, of all ages, and in all careers.

c. Made recommendations pertaining to each of the research proposals prior to their final approval.

d. Review the current State Plan for Vocational Education, and made useful recommendations.

e. Currently the Council, through its various committees, is making a more in-depth study of the quality and effectiveness of the various phases of vocational education.

7. Suggestions Regarding Federal Laws and Policies Pertaining to the Operation and Administration of Vocational Programs—a. Provide for the continuation of the Vocational Act of '63 and '68 Amendments or the passage of a new and similar act that would provide categorical funds for vocational education.

b. Provide for the continuation of vocational education under the administration of state boards for vocational education and directed and supervised through state departments of education.

c. Provide that educational components remain the responsibility of vocational education in existing manpower programs and/or new manpower acts passed by Congress.

d. Sufficient Federal funds must be made available to us if we reach full employment in our nation through quality vocational education manpower programs.

e. Provide for the administration of the educational components of the manpower programs on a national level under the Departments of HEW and the U.S. Office of Education.

f. Provide for the continuation of Federal matching requirements that promote State participation. (States are now matching three or more state dollars for each Federal dollar expended for vocational education.)

g. Provide for the continuation of a total program of vocational education meeting all the needs of all the people through Secondary, Post-secondary, and adult vocational programs. (Under state boards for vocational education at state levels.)

h. Provide a prominent place for vocational education in the structure of the U.S. Office of Education, with sufficient staffing at the U.S. Office of Education to administer vocational education on a national level.

We certainly appreciate the fine support you have given vocational education. Please contact us at any time if there is information regarding Virginia's total program of vocational education that may be helpful to you.

WASHINGTON

State Director—Ernest G. Kramer

Progress in Vocational Education in Washington State Subsequent to the Vocational Education Amendments of 1968 in the Areas of (A) Research, (B) Post-secondary Education, (C) Education for the Handicapped and Disadvantaged, (D) Methods of Intra-state Distribution of Funding, and, in Conclusion, (E) a Brief Comment on the Contributions of our State Advisory Council.

(A) RESEARCH

A research coordinating unit (RCU) was created in Washington State under the provisions of the 1963 Vocational Act. Until August, 1969, the unit was a part of the Research Office of the Superintendent of Public Instruction. Since 1969, it has functioned under the Program Planning Division of the Coordinating Council for Occupational Education.

For those unfamiliar with our state structure, the Coordinating Council for Occupational Education, by act of the 1967 legislature, became, as a state code agency, the functional successor to the State Board for Vocational Education.

Growing educational responsibilities continue to be assigned to the Research Coordinating Unit. Its principal functions include (a) providing research consultation services to the educational establishment, (b) disseminating vocational education research information of value to both professionals and lay persons, (c) designing and supervising research activities calculated to encourage professional improvement and program improvement, and, (d) contracting with individuals and agencies in pursuit of its research functions.

Research projects which were enabled by 1968 allocations produced among other tangible benefits, a series of significant EPDA projects currently underway. Exemplary programs developed in 1968–69 have been recognized by inclusion in reports from the N. W. Regional Educational Laboratory and the Center for Vocational-Technical Education at Ohio State University, amongst others.

An absence of available funds for research grants to local educational agencies during 1969–70 seriously set back our plans for innovative program development. During this period, however, the RCU continued significant contributions in other areas, reviewing and evaluating ESEA Title II and Title III provisions that were vocationally related. Additionally, it continued in the development of a research library. With its computerized indext, it currently contains over 1,000 research and related documents. Also, RCU maintains close liaison with the ERIC informational network. Our ERIC files currently include approximately 40,000 microfilm documents.

A continuum of information has been maintained between our research unit and other state agencies whose informational sources can be made relative to the needs of people and the economy for occupational training. These include our Department of Employment Security, the Department of Commerce and Economic Development, the Governor's Manpower Coordinating Committee, and others.

We have established priorities for the expenditure of federal funds which have again become available for research. Not yet having exact information regarding the level of funding available in the next fiscal year, specific program allocations have not yet been made.

In summary, the net effects of the functions performed in research in Washington State since the Vocational Amendments of 1968, have been strongly felt both in a direct fashion by the specific allocation of dollars to programs and indirectly by providing a data bank as a statewide resource from which to disseminate information to the profession and the public.

(B) POST-SECONDARY EDUCATION

It might be well to observe in response to this particular category of "Post-secondary Education" that one of the strongest positive directions implicit in the design of the Coordinating Council has been a focus on vocational education wherever it occurs. We have succeeded to a significant degree in providing a bridge between secondary and post-secondary occupational programs. We visualize our mission as creating an articulated series of learning opportunities which extend in unbroken availability from the third graders we are presently exposing to planned glimpses of the world of work, to the necessary (if I may borrow a phrase) "human recycling" needed to keep workers current with employment requirements.

I make this observation to underscore a feeling that identifying "post-secondary" data alone fails to reference the substantial progress since 1968 which we have scored throughout the common school system. Many significant advances have been made in meeting the occupational needs of persons otherwise unable to allocate time to job preparation beyond the 12th grade. Much of value has been accomplished through occupational exploration programs. Vocational guidance has been strengthened and strong progress is already registered in our efforts to present vocational education as a fully acceptable alternative to the all-too-frequent college syndrome. Post-secondary education in Washington State occurs in three institutionally oriented settings and in a variety of facilities related to manpower training. All have shown significant growth since 1968.

INSTITUTIONAL SETTINGS

1. Community Colleges

These institutions offer many comprehensive programs, operated by the State Board for Community Colleges; created by the Community College Act of 1967. There are currently 22 community college districts with 26 campuses. Community colleges are serving approximately 80% of Washington State's students who are enrolled in public post-high school programs. Overall, beginning with a 1963 enrollment level of 28,476 students, this system grew in 1967–68 to an enrollment of 78,700. The 1970–71 enrollment totals 99,400, with a projected growth for 1975–76 to 149,900. Occupational education enrollments in 1965–67 averaged 23.3% of the total. The average by 1967–69 rose to 28.4% and in the current academic year, occupational education accounts for 32.8% of the total, or 21,279 full-time-equivalent students (15 credit hours=1 FTE student). In this current year, almost 50,000 part-time students are being served additionally in approximately 4,000 supplementary and upgrading courses. In the years from 1968 to 1971, occupational programs increased within the community college system at a rate double that of the overall growth rate of 71%. The State Board for Community Colleges has established a goal of having 50% of the total enrollment in vocational programs by 1980, despite the recognized fact that construction costs and program support for occupational programs are greater than academic offerings (the current biennium expense for occupational construction will equate 45% of the total, despite the output in students accounting for only 37.6% of the total).

2. Vocational-Technical Institutes

The second segment of institutional settings are Washington's vocational-technical institutes. Five of these institutions are currently operating, having elected in 1967 to remain under the jurisdiction of local school districts and the general authority of the superintendent of public instruction in preference to becoming a part of the community college system. These locally operated vocational training centers may be unique to Washington State. Enrollment increase in the existing vocational-technical institutes since 1968 has been steady, although not as dramatic as the community college growth which included the opening of new institutions. Many specialized programs are offered. Most programs are operated on a continuous enrollment basis. Occupational competence is generally utilized as a completion measurement, thereby occasioning courses of many differing clock-hour contents. These institutions would account for the enrollment of approximately 20% of the public postsecondary occupational students.

3. Proprietary Schools

The third of the settings in which occupational education of a postsecondary nature occurs is in the private sector. Washington State currently has approximately 300 proprietary vocational schools offering training to approximately 20,000 students in this fiscal year. It is not possible to directly relate growth figures within this industry to the effects of the 1963 Vocational Act or its amendments. Only one specific area might be relatable. In manpower training programs the 1968 amendments gave additional impetus to utilization of proprietary vocational schools. Prior to 1967, the participatory share in manpower programs by the private sector was negligible. In this current fiscal year approximately 30% of the overall effort has been contracted to proprietary schools. Following the legislative intent expressed by both Congress and, increasingly, by our state legislature, various means to employ existing private vocational facilities are being expanded. These include mechanisms such as contracting between school districts and community colleges whereby public schools utilize shop and laboratory facilities of private schools to augment or altogether provide the practical portion of their occuptional programs.

MDTA PROGRAMS

Manpower training programs, significantly expanded since 1968, utilize a variety of training settings, including public and private schools, work experience settings in business and industry, community based training enterprises, on-the-job training settings and others. These form a significant portion of what can be inclusively categorized as "Post-secondary Education."

Since 1963, approximately 18,000 persons have received specific skilled training under MDTA auspices. Of these, approximately 15,300 were employed in recognized occupations. Included in the approximately 15% remaining are those who entered military service, left the state, were lost track of, and who failed to become employed. Additionally, in the corresponding period approximately 32,000 persons were provided with general educational programs; nominally, precursory to subsequent vocational programs.

Total funds expended under MDTA programs in Fiscal Year 1968 were $1,480,000. Corresponding expenditures in FY 1971 total $5,192,000. People serviced in FY 1968 totaled approximately 1,000 persons in 17 projects. In FY 1971, 4,319 persons are being served in 66 projects.

The increased participation by proprietary schools, mentioned under Item B.3, resulting from parallel directions in the 1968 amendments and corresponding decisions at the state level, resulted in a growth from 1 project contract in FY 1968 to a total of 18 contracted in FY 1971.

(C) EDUCATION FOR THE HANDICAPPED AND DISADVANTAGED

A true picture of the total effort directed toward education for the handicapped and disadvantaged is difficult to achieve. At the high school level, identified "disadvantaged" and "handicapped" individuals are more fully reported statistically. However, in the post-secondary setting, many such individuals are not separately identified and become part of regular on-going classes. In the context of this report, we can reference only statistically identified persons under both categories.

In the Community College System, approximately 7,700 disadvantaged or handicapped persons are being served in FY 1971. These include enrollees under MDTA, Adult Basic Education, Vocational Rehabilitation, New Careers, Work Incentive (WIN), and Migrant Education. The growth from 1968 has been approximately proportionment to the overall system growth.

Programs in the vocational-technical institutes reflect post-secondary training efforts within the office of the State Superintendent of Public Instruction.

Allocations through the office of the Superintendent of Public Instruction in FY 1968–69 totaled $286,681 for handicapped programs and $588,619 for disadvantaged programs. This compares to FY 1970–71 allocations of $282,923 in handicapped categories and $318,872 in disadvantaged funding.

An important effect of the '68 amendments can be seen in the improvements in allocations formulas relating to the distribution of handicapped and disadvantaged funds. Factors such as high school dropout ratios, adjusted family income figures, ratios of handicapped and disadvantaged persons to the general population, degrees of local support availability, and other factors closely paralleling federal guidelines evolve into a point system. Priorities are then established to assure funds being allocated to areas of greatest need. Further information regarding distribution of funding appears under paragraph (D).

It must also be considered that a high percentage of disadvantaged persons are served in those programs referenced under "MDTA Programs." Therefore, the data reflecting identified "disadvantaged and handicapped" activities are not totally indicators of the entire scope of program activities in these areas.

(D) METHODS OF INTRA-STATE DISTRIBUTION OF FUNDING

Federal vocational monies are allocated by the Coordinating Council under a concept of programed planning and budgeting. Washington State has the unique distinction of developing the first State Plan for Vocational Education constructed under PPB concepts. Parts II and III of the documentation being presently submitted contain sections on "Forecast of Needs and Justification of Program", "Goals—Major and Subgoals", and "Program Plans (Annual and Long-range)." The distribution of our entire allocation is totally displayed in 38 pages of project data. This degree of candor in published documentation is probably unparalleled.

Washington State's total Federal appropriation of vocational funds in FY '68 was $3,941,000; in FY '69, $3,724,000; in FY '70, $5,743,000; and in FY '71, $6,347,200. We would believe that the increasing levels of funding can be attributable in no small degree to the effects of the '68 amendments.

A combination of state general fund allocations and monies raised by local school district levies support our state's common school system. A formula is achieved to produce a dollar figure of support-per-pupil. The pupil count is achieved on the basis of full-time-equivalent students (FTE); derived from contact hours in class. Each FTE student in an identified vocational program receives an additional 50% support. The distribution of these additional vocational support monies are achieved within the local school districts.

About 80% of the community college operating support is appropriated by the state legislature. The contribution of Federal funds to community college activities has already been described, as these relate to individually identified vocational projects. Any additional federal funds block-allocated to the community college system are distributed under formulas determined by the State Board for Community College Education.

In summarizing this section, it must be noted that our principal thrust in the application of Federal funding for vocational education has been, and will continue to be, in the areas of program development; as "seed money." We are a resource agency. The maintenance and operation support for programs, once established, becomes primarily the responsibility of the state.

(E) CONTRIBUTIONS OF OUR STATE ADVISORY COUNCIL

Established under the mandates of 1968 vocational education amendments, the Washington State Advisory Council on Vocational Education has developed an increasingly significant role. Appointees to this council by the governor have been consistently knowledgeable people, representative of a broad spectrum of appropriate interest areas.

The council published its first report March, 1970. This report has enjoyed wide circulation. The seven recommendations it contains, which appear again in the FY '71–72 Washington State Plan for Vocational Education, are receiving careful continuing study.

It might be of interest to note the high marks awarded the Advisory Council by a special evaluating team from the U.S. Office of Education in April, 1970. Of particular noteworthiness to them was the objectivity with which the Advisory Council was constituted and the careful fashion in which objective separation has been maintained between that council and the educational establishment. Far from being "captives of the state office", as apparently describes the conditions within other states, Washington State's Advisory Council has provided a dimension of impartial questioning that has proved of significant value.

Let me conclude by observing the overall difficulty in referencing your questions regarding specific effects in Washington State produced by the '68 Amendments. In all candor, our state's citizens have provided spontaneous support through an enlightened legislature which makes the answering of the old question "which came first . . ." extremely difficult to determine. Washington State ranks first in the nation in per-capita expenditures for vocational education at this time. The creation of the Coordinating Council as a state agency is conceptually unique. Great interest in such a model has been expressed by other states. Our State Plan for 1971–72 has no previous parallel and may well become a national model.

At the same time, there can be no doubt that the focus of the '68 Amendments on the occupational needs of the individual, and the increased fiscal support which has followed, spurred and supported all of our undertakings. Were I obliged to single out the most important one effect of the '68 Amendments, I would unhesitatingly suggest it to be the benchmark shift in orientation from "programs" to "people." This new priority has contributed the strongest support, in my judgment, to overall effective improvements within the entire system.

Thank you for this opportunity to share these observations with your committee.

WEST VIRGINIA

State Director: Fred W. Eberle

THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AND THEIR IMPLEMENTATION IN WEST VIRGINIA

A Progress Report

West Virginia's vocational education program has experienced steady and significant growth during the decade of the sixties. Federal legislation, through both the 1963 Vocational Act and the 1968 Amendments, has served as a prime vehicle for vocational education program expansion and change. The nature of the legislation and the resulting impact upon program and participant does not lend itself to terminal measures of effectiveness within the time frame addressed. This is particularly true of the 1968 Vocational Act Amendments. This does not mean, however, that substantive changes have not occurred in program planning, development, management and operation.

Substantial progress has been made in implementing the provisions of the 1968 Vocational Act Amendments in West Virginia. The following remarks are directed toward specific sections of the legislation citing both accomplishments and problems encountered in program administration.

RESEARCH

The potential of the research provisions contained in the legislation has yet to be fully realized. The level of federal funding during the first year of operation under the Amendments precluded any significant effort on the part of the state in this area of emphasis. Funding during the present fiscal year is at a much more acceptable level; however, the products of research, development and innovation are not readily available within the short period of time which has expired since appropriations have been made by the Congress. An operational research capability is vital to the state effort in vocational education for the purposes of: (a) Decision making, (b) planning, (c) program evaluation, (d) program adjustment, and (e) program accountability.

Additionally, risk capital is needed to stimulate innovation at the operational level. Educational change is accelerated to the extent that resources are made available to facilitate the change process and assume a measure of the risk involved. The funding pattern should be consistent in order to allow states to engage in programmatic research on problems which do not lend themselves to short-range solution. Sporadic funding of this section of the Act will not permit the continuity of research planning necessary to attack the critical problems facing vocational education throughout the state or nation.

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Essential to the development and expansion efforts of vocational education is the need to identify emerging occupations and the development of instructional systems to meet these needs. Additional areas of concern relate to identification of the proportion of the population needing to be trained in institutional setting as compared to the proportion who can be fitted for employment through on-the-job training methods.

West Virgina, in allocating its FY 71 research funds, has chosen to finance projects which fall into the following broad areas of concern:

(a) Projects which are developmental in nature and designed to meet the special vocational needs of handicapped and disadvantaged youths.

(b) Projects which incorporate the development of the systems approach to guidance.

(c) Projects which relate to curriculum development.

(d) Research mini-grant projects to stimulate program change at the classroom level.

(e) Research training, provided on an intensive short term basis, designed to assist practitioners in the utilization of research findings and project development.

(f) Projects which relate to the management of vocational education to include: (1) Cost studies, (2) staffing patterns and utilization, and (3) administrator competencies.

In addition to the specific projects previously identified research resources are utilized to provide for the operation of the State Research Coordinating Unit which functions to aid in the monitoring of the state research and exemplary projects, provide educational information services and perform in-house research activities.

POSTSECONDARY VOCATIONAL EDUCATION

Postsecondary vocational education in West Virginia is currently provided by seven institutions of higher education and thirteen county boards of education. Program objectives established for FY 72 provide for the accommodation of 340 additional postsecondary students in 18 new programs. This represents a 25 percent increase in postsecondary enrollment since FY 71. Postsecondary vocational education has been identified as a priority area for program development.

In order to maintain an effective plan for vocational education one administrative agency should be recognized. This approach assures that facilities are not duplicated and programs competitive.

The articulation of secondary and postsecondary programs is necessary in order to provide to continuum of instructional content in those occupations requiring additional preparation beyond the secondary level. The need exists for pre-postsecondary programs with emphasis upon the elements of mathematics and science. An open door policy and a more effective postsecondary guidance program is essential to more adequately meet the needs of the postsecondary age population.

VOCATIONAL EDUCATIONAL FOR THE HANDICAPPED AND DISADVANTAGED

There has been a proliferation of programs dealing with the handicapped and disadvantaged. Vocational education has traditionally enrolled a large number of such persons. There is, however, a great deal of hesitancy on the part of local educational agencies to identify handicapped and disadvantaged persons due to labeling the individual by such identification. The continued emphasis on these target populations has served to create a consciousness that leads to neglect of the overall program. Not every handicapped or disadvantaged person may need, want or be able to profit by vocational instruction. Such programs cannot be conducted without extensive supportive services.

The use of the project method of funding has proven to be of some merit in West Virginia. A total of thirteen projects in thirteen of the fifty-five counties were conducted in West Virginia in FY 70. Eighteen projects in seventeen counties are being conducted in FY 71. Based on enrollment data approximately 18 percent of the disadvantaged and 2 percent of the handicapped are enrolled in secondary vocational programs.

One of the barriers to the development of special programs for the disadvantaged is the funding pattern of grant moneys which encourages short-range rather than long-range planning.

DISTRIBUTION OF FUNDS

Policies and procedures have been developed to allocate funds for the operation of programs with consideration for:

(a) Manpower Needs and Job Opportunities,
(b) Vocational Education Needs of the Population,
(c) Relative Ability of Local Education Agencies to Finance Programs, and
(d) Excess Costs of Vocational Education.

The allocation of funds in support of programs, services and activities is accomplished through use of a linear equation incorporating variables which have been identified as criterion measures of the above factors. The use of this formula in conjunction with a base allocation of funds provides a differing rate of reimbursement to local educational agencies as prescribed in the legislation and Federal regulation.

Specific problems have emerged in the financing of vocational education. Maintenance of effort is a problem—particularly in years when heavy expenditures are made from local and state levels for construction purposes. Also, the demands placed upon local educational agencies to match various federal program dollars on an unequal basis, in many instances, places vocational education programs at a disadvantage.

The Tydings Amendment allowing carry-over of funds is critical to the wise expenditure of funds in certain areas. Advance appropriations of at least one fiscal year are needed to assure more adequate annual planning.

CONTRIBUTION OF STATE ADVISORY COUNCILS

The concept of State Vocational Education Advisory Councils is good. Advisory Councils, seemingly, have been moving through a role and function identification stage and have not yet emerged the effective agencies which they have potential to become.

Activities of State Advisory Councils in the conduct of local program evaluations is questionable in light of state level evaluation and policy-making advisory duties prescribed by legislation.

Suggested Improvements in Federal Law and the Administration of Vocational Education and Manpower Training Programs

The role of vocational education in the development of the nation's manpower resources should be identified in such a manner as to provide total services incorporating all facets involved in manpower recruiting, training and placement.

The proliferation and establishment of similar programs through other Federal legislation should not be designed to supplant existing programs and services. If this indeed occurs, the provisions for existing programs as they relate to finance, jurisdiction, accountability and equality should be applied to the new programs.

The various sections of existing legislation need to be clarified in order that it will be consistent in its interpretation and implementation.

Funds should be allocated from the Federal level to the states through the use of formula which incorporates criteria similar to that required of the states in the allocation of their funds to local educational agencies.

Amount of Federal Funds under Part C available to Wisconsin Fiscal Year 1971 as part of the share available to State=$367,836.

Amount of Federal Funds under Part C allocated to Department of Public Instruction=$138,375.

Amount of Federal Funds under Part C available to Wisconsin Board of Vocational, Technical and Adult Education=$229,441.

Federal Funds of the States' share can be used to reimburse up to 75% of the operational costs of the Research Coordinating Unit (RCU) and up to 90% of the costs of projects.

Research projects: Sixty six project applications were received from local VTAE Districts, State Staff, U. W., Stout State University and WSU-Oshkosh. Of these, 34 were approved and 32 disapproved. Two are in review committee and 2 are anticipated as cooperative projects with DPI. As of February 25, the 9 projects funded on a 75% Fed-25% local basis totaled $57,015 in Federal Funds. The most common reason(s) for disapprovel were low ratings in the following criteria:

1. Soundness of design, procedures, plan, theoretical and logical basis to approach problem, technical quality, instrument design, statistical treatments, etc.
2. Educational significance, importance of problem generalizeability, probable impact (state).
3. Other reasons including irrelevance to priority areas, focus on curriculum development rather than on research.

In many cases it was felt the project should be conducted as a part of regular ongoing operations.

2. Post-Secondary Education—Since the initiation of district organization, Wisconsin has developed extensive offerings on the post secondary level in vocational and technical programs. The number of programs devoted to full time education in the existing 18 districts has increased from 610 in fiscal 1969 to 690 in fiscal 1971.

The areas of concentration in occupational fields are centered in the broad categories of Agriculture, Distribution, Health, Home Economics, Office, Trades and Industry, Apprenticeship and Technical programs. Enrollments in these occupational programs have increased from 32,250 in 1969–70 to 34,900 in 1970–71 and 37,400 in 1971–72.

Examples of types of occupational program offerings include Auto Mechanics, Service Station Operators, Practical Nurses, Accounting, Clerk-typists, Printers, Child Care, Quantity Foods, Short Order Cooks, Ward Clerks, Sales and many others directly related to specific occupations.

In addition to the full time vocational-technical programs, the Wisconsin schools offer many varieties and types of adult continuing education programs to the presently employed for upgrading skills and knowledges as well as part time preparatory education to those who wish to change occupations. These programs are conducted at any time of the day and at any accessible location. Approximately 130,000 people participated in these types of adult programs in facilities that ranged from the formal educational institution to the church basement, renovated bowling alleys, rented garages and the town hall.

3. Education for the Disadvantaged and Handicapped—The federal Vocational Education Amendment of 1968 (P.L. 90–576) has,

through the project method, required institutions to specifically design and deliver special services to the Disadvantaged and the Handicapped so that these persons would improve their chances to enter the stream of vocational education and to succeed where otherwise they would have failed. Special services which have been developed and delivered include: outreach, special counseling, diagnostic and assessment work, orientation to vocational education and work, pre-vocational preparation, individual attention in learning, tutoring, special teaching methods and techniques, coaching and follow-up and the involvement and employment of Disadvantaged and Handicapped persons as para-professionals. The Vocational Education Amendments have challenged institutions to gear themselves to the needs of persons with special needs, especially by making staff and financial resource commitments and by increasing inter-agency articulation and cooperation in order to prevent any duplication and to get the job done efficiently. Approximately 2000 to 3000 Handicapped persons and 4000 to 5000 Disadvantaged persons have been served per year.

4. Exemplary Projects, Part D, VEA '68—The purpose of Part D Exemplary Projects and Programs under the Vocational Amendments of 1968 is to develop new ways to create a bridge between school and earning a living for youth. These can be in the areas of curriculum, vocational guidance, cooperative arrangements with manpower agencies, staff exchanges, work experience, etc.

Of the approximately $160,000 allocated to Wisconsin for FY 1971, 40% was awarded to Department of Public Instruction for partial reimbursement of such projects as "Vocational Guidance TV Series" at Oconomowoc; a "Mobile Vocational Guidance Van" to serve four schools in the Brillion, Wisconsin area; and a "Computerized Occupational Program" in Milwaukee.

The approximately $100,000 allocated to the post secondary VTAE system was used in such projects as "Educational Assistance to Potential Dropouts" in the Fox Valley; "Regional Career Information Center" in the Fox Valley; and a "Nursing Skills Learning Laboratory" in Milwaukee.

Several exemplary projects were approved but not funded because of insufficient funds. Additional funds and staff in this area would facilitate development of exemplary projects and programs.

5. Consumer and Homemaking Education, Part F, VEA '68—Part F—Consumer and Homemaking Education funds have created a public awareness of the need for Consumer Education and have caused substantial progress in developing educational programs to meet these needs. Most of the funds were used to develop programs for minority groups in the ghetto, or on Indian reservations, the rural poor, and urban low income families. Pilot or developmental courses have been developed for post high school students who are enrolled in diploma and associate degree programs.

The program in the Kenosha Technical Institute Includes:

"Consumer Education"—semester course
  FY 70—20 students enrolled
  FY 71—60 students enrolled
"Marriage In The Now Generation"—semester course—new
  FY 71—55 students enrolled

Consumer-Homemaking Education projects have served over 12,000 persons in the state during this fiscal year. All Home Economics Coordinators in the state have incorporated considerably more consumer information in adult education offerings.

The 1968 legislation has challenged educators to become much more innovative in program development and implement. Educators have responded, the results are gratifying. But problems facing us today include:

1. insufficient funds to adequately support newly developed programs, and to expand programs to reach more persons needing consumer education
2. Insecurity of funds are appropriated, breaks continuity of projects which require several years for efficiency and impact upon identified concerns.

6. Methods of Intra-State Distribution of Funds.—The 1968 Vocational Education Amendments set forth a variety of criteria for distributing federal funds. These criteria vary according to the particular provisions of that part of the act. This is a fine feature of the act. It enables the educational administrators to distribute the funding according to the intent of Congress. The Wisconsin Plan adheres very closely to all of the federal regulations pertaining to the distribution of funds, because there are so many of these regulations the feasibility by which these funds can be allocated to the locality is limited. The allocative process is always a dilemma by being constrained by the requirement of accountability on the one hand and being pressured to realize individual needs on the other hand.

The Wisconsin Plan provides that 40% of its funds at the elementary and secondary levels. These funds are forwarded to the Department of Public Instruction and administered by that agency. The post secondary funds are first of all distributed to the districts in such a manner as to the need, ability to pay, and effort of the individual locality. Each of Wisconsin's 18 administrative districts prepares a series of projects; the sum of it represents their local plan priorities. Each district prepares projects for each part of the act and these projects are then rated against all other district's projects according to the criteria set forth through the use of statewide and local data. It is felt that the Wisconsin System provides a reasonable balanced system. The requirement for the accountability of funds as the one hand and the requirement for distribution of funds according to the selected criteria on the other hand. This has required a great deal of effort and time by state staff, however it was felt that the funds are being used for the intent of Congress.

7. Contributions of State Advisory Council—An Advisory Council representing industry, labor, education and government was appointed by the governor and is functioning in an advisory capacity to the State Board of Vocational, Technical and Adult Education. The council meets on a scheduled basis and at the call of the chairman. There have been nine full committee meetings conducted in which the members review ~~the~~ State Plan on a yearly basis. In addition, the council with the cooperation of the State Board staff, has contracted for and conducted evaluations of programs on a statewide basis. The evaluation report has been reviewed and submitted in its completed form.

MANPOWER TRAINING

Wisconsin is in the process of re-organizing the management of its manpower program. The new Governor is presently studying the past short history of the State Manpower Council and will soon decide on a pattern of management action for the administration of manpower programs in Wisconsin.

Certain potential influences, beyond the control of the State Manpower Council, could well hamper or alter the state's desired manpower management plan. These are influences that should be carefully studied by Congress.

Examples of such influences are the possibility of comprehensive federal manpower legislation, restructuring of the Cooperative Area Manpower Planning System (CAMPS), and administration of manpower programs by other than state governmental agencies.

Our immediate recommendation on manpower legislation would be to urge Congressional action on H.R. 8724 introduced by Mr. Hansen of Idaho. This is constructive manpower legislation which would:

1. Strengthen and improve presently effective manpower programs including the Skill Centers.
2. Enhance relationships which have been painstakingly established between manpower agencies who can effectively deliver manpower services.
3. Provide for an advisory committee to evaluate all agencies involved in manpower training services and help unite them for a common objective.

SUMMARY RECOMMENDATIONS ON VOCATIONAL EDUCATION AND MANPOWER TRAINING

The strengths of Vocational, Technical and Adult Education in Wisconsin are:

1. It has been effectively provided to the citizens of the state by a strong, post high school, continuous, organized delivery system for the past sixty years (1911–1971) with its major source of revenue the local community (now a district) and more recently, the state assuming an increasingly larger financial responsibility with limited financial support from the federal government.

2. Since the passage of the Vocational Education Act of 1963 and subsequent Amendments, the secondary education system of Wisconsin has been moving rapidly to assume its responsibility for career orientation in vocational education for elementary and high school age youth.

3. The Wisconsin Vocational, Technical and Adult Education System has developed and maintained close working relationship with the labor, business, management, agricultural, government, education and local communities. This closeness to the people at the community level has resulted in a growing support for the system by all citizens of the state.

4. Through state legislation, all territory within the boundaries of the state are served by the system and all citizens of the state are guaranteed access to equality of vocational, technical and adult education. Increased emphasis has been placed on outreach and educational concern for urban and rural disadvantaged and handicapped through a comprehensive Field Service function.

5. Articulation among elementary, secondary, post high school and university levels of education brings implementation of the educational continum concept in occupational education to all citizens of the state.

6. Wisconsin enjoys a unique position among the states in having agency status for Vocational, Technical and Adult Education, not only among the educational agencies of the state but as a department of state government. Both at the state and district level, the Director of Vocational, Technical and Adult Education is the executive officer and educational leader of policy making boards of vocational, technical and adult education.

Problems which tend to hamper the desired progress of vocational education and manpower training in our state are identified in the **following statements:**

1. Despite the fact that Wisconsin is predominantly a rural state with a tradition of skilled manpower; a result of its German heritage, the young people of the state continue to suffer from an over-emphasis on the so-called prestige of a university education. Insufficient emphasis on career orientation in the elementary school system, limited state support of vocational education at the secondary level, and inadequate federal support at the post secondary level continue to prevent vocational education from assuming its rightful role for the youth and adults of the state.

2. The limited national leadership by the U.S. Office of Education and the continued inability of the Department of Health, Education, and Welfare in taking steps to correct this deficiency has been a major factor in the inability of the states to accomplish the goals established by the National Advisory Council and the President and Congress of the United States.

3. The continued attempt by the Department of Labor to develop and establish vocational education programs outside the confines of the traditional and established vocational education system throughout the nation has further weakened the national program and such competitive efforts on a national level, if continued, will continue to weaken the movement and fragment the national effort. The educational component of all manpower programs must be allowed to remain in the mainstream of public vocational education.

4. The future of Vocational, Technical and Adult Education in Wisconsin has a bright future due to bipartisan support in the state legislature, traditional interest and support of the citizenry at large, increasing support from cooperating local and state agencies and powerful labor-management endorsement. Given the necessary support on the federal level, as intended by the President and Congress, the purpose of vocational education in providing a skilled work force throughout the Nation could become a reality.

5. Manpower and Higher Education are components of vocational education in the broadest sense. Higher education, with its current youth unrest, and with the financial advantage it enjoys at both state and federal level, its unsuited, by its own choice, to provide occupational educational service to the majority of the youth and adults in this country. In those areas of the Nation where this philosophy exists, the void, so created, must of necessity, be filled by agencies and organizations with neither the experience nor the expertise to fulfill

the mission of vocational education. Manpower agencies, with their knowledge of the job market, have seen fit to expand their role to include the educational function. Only the passage of time will determine if their limited successes and their failures will justify the decision to interpret their role in this manner.

6. A concept of multiple use of dollars and resources must replace the present dispersion, fragmentation, and improper diversion of funds through existing channels. Until the centrality of education is recognized in the occupational preparation and social progress of youth and adults based upon sound educational career development processes, the massive amounts of federal dollars entrusted to agencies without their knowledge and expertise will continue to be wasted. The educational functions of all agencies should be gathered together and administered by an educational agency that has or can have the national leadership and expertise to make the system operative. The inability of the leadership at the federal level to relate the system to the blue collar worker cannot be construed as an inability of all of the component parts. The New Federalism may give the component parts, the states, an opportunity to show the administration and Congress the system within the States that has the expertise to provide his function.

7. Substantial improvements in any program are possible under current levels of expendtiures. Great care should be exercised, however, in the methods and techniques used in making this determination. History has proven, at least in Wisconsin, that a strong federal-state-local relationship in providing vocational, technical and adult services to the youth and adults of the state is the "chosen" way. Wisconsin is ready and able to provide this service to its citizens and will continue to practice this philosophy.

8. Substantial progress has been made in planning and budgeting to carry out the mandates of the Vocational Education Act of 1963 and the Amendments of 1968. The change from block grants to categorical aids to block grants is not any easy change to implement. Given the consistency in program planning at the federal level necessary to accomplish these mandates, the job can and will be accomplished. Wisconsin will, with adherence to its basic philosophy of providing equal vocational, technical and adult education to all of its citizens, and with its traditional vocational education characteristics, continue to meet the occupational needs of its citizens utilizing the principles espoused by the federal government wherever and whenever possible.

The longstanding conflict that exists between HEW and the Department of Labor must be eased.

Both agencies need to review and define their role on the national scene in the same manner as that requested of their counterparts in the states. The Bureau of Vocational, Technical and Adult Education in the Department of Health, Education and Welfare must be recognized for the contribution it has made and can make in the field of education. The over emphasis upon "higher education" by H.E.W. is a concept only the agency itself can recognize and correct. H.E.W. should assume the responsibility for the present conflict.

The Department of Labor has its legitimate function to perform for the federal government. Expansion of that role over functions that are the perogative of other federal agencies only serves to weaken its leadership at the federal and state level.

Wisconsin has not experienced, to the fullest extent, this conflict of interest, but its effect on the national scene has affected the conduct of vocational, technical and adult education at all levels. A resolution of this conflict merits a high priority in national objectives.

Thank you for this opportunity to provide your important Subcommittee with information on current progress and problems in vocational, technical and adult education and manpower training in our state.

Sincerely,

EUGENE LEHRMANN, *State Director.*

WYOMING

State Director—Bruce C. Perryman

STATEMENT OF BRUCE C. PERRYMAN, DIRECTOR, DIVISION OF OCCUPATIONAL EDUCATION, STATE DEPARTMENT OF EDUCATION, STATE OF WYOMING, CHEYENNE, WYOMING

THE EFFECTIVENESS OF IMPLEMENTATION OF VEA '68 IN THE STATE OF WYOMING

Mr. Chairman, Members of the General Subcommittee on Education: I am Bruce Perryman, Director of Occupational Education, State Department of Education, for the State of Wyoming. I am here today representing the occupational educators and the State of Wyoming insofar as it relates to the implementation of P. L. 90-576 in this State. I am certainly grateful for the opportunity to be here and to present information which I hope will be of use to the Subcommittee on Education and to the Congress.

Introduction

First, I would like to make a general statement as to the overall success or failure of the implementation of P.L. 90-576 within the State of Wyoming. I think, without question, perhaps VEA '68 has provided one of the most significant impacts toward the change in approach and philosophy of education in our State that we have had in perhaps twenty-five years. The underlying philosophy and intent of VEA '68 certainly provides a framework for change. Although the change appears to be somewhat controversial within the context of many of the progressive and, I think, innovative educators not only in our State but throughout the country, it perhaps will provide the general direction for education in the future.

The "Career Development Education" concept is certainly one which is manageable and, I think, can be proven successful beginning in the early elementary grades and continuing through adult education. It also provides a base to do away with a dichotomy in education. It's hard to believe that soon we can look forward to the concept of career education rather than to be segregated into little niches such as general education, academic education, "vocational" education. I would like to enter a quote here of Education Commissioner, Dr. Sidney P. Marland, Jr., which relates to career education and which, I think, provides the basic frame for the program development taking place in our State. "We must purge ourselves of academic snobbery. A most grievous example of these intramural class distinctions is, of course, the false dichotomy between things academic and things vocational. As a first step, I suggest we dispose of the term vocational education and adopt the term career education. Every young person in school belongs in that category at some point, whether engaged in preparing to be a surgeon, a bricklayer, a mother, or a secretary."

I do not think that "vocational" education as we have known it will provide the framework for a career education system. It is obvious that the career education system as pre-supposed, I assume, under VEA '68 will introduce the elementary school child to the world of careers; it will provide exploration, guidance and counseling for career choices throughout elementary and secondary education; it will provide specific education using a career ladder concept incorporating job clusters; and will also articulate with the post-secondary program. It will be interdisciplinary and integrated. To effect a new career education system, the present "vocational" education delivery system cannot be just modified; it must be more or less revolutionized. We need job placement components. We need an articulated K-Adult and continuing education concept providing attitude development, career orientation, career exploration and skill development for job entry for all persons who might interact with the system. Leadership within the confines of the career education concept must be in the forefront, particularly in all entities that interact with the overall program development throughout the nation and the various individual states. We cannot attempt to change a system utilizing old methods and old concepts. We can expand the old concept and improve upon these to guarantee quality education for all but we must have the leadership to provide the direction and the stimulation to accomplish and to change and to achieve.

Assessment on Implementation

In at least two instances each fiscal year each state director and his staff must go through the necessary functions of providing the development of a state plan for the U.S. Office of Education and a descriptive report of program activities for occupational education within the state. These in a sense, I suppose, provide the assessment of the present ongoing programming. I would like to state, however, that the state plan effort is perhaps one that is negligible and in our case, perhaps most ineffective. We recognize a tremendous need for having federal funds stimulate change in program activity, however, we are tied to many rigid guidelines in developing a state plan which is in effect not applicable to the needs of this State. Allocation is determined for our State based on our population, and at present is still being based on the 1960 Census rather than on the 1970 Census; therefore, justifying the need in terms of program development and state planning and putting things down in the state plan does not relate to the allocation and the method of allocation to our State. At this point, I will attempt to provide an appraisal of the occupational education efforts and offerings in the Wyoming school systems as it might relate to VEA 1968 and its implementation.

Perhaps the greatest limitation to effective implementation was incurred when Federal funding was delayed until late in the past two fiscal years. This did not allow sufficient time to implement and plan effectively at the local level for the various types of occupational programs referred to in the amendments and the state plan for the various fiscal years intended. Undoubtedly, the effect of the late funding will be an inhibitor to the overall effective implementation and rapidity with which programs can be implemented during the current years in question. The uncertainty of funding generates a reluctance in local schools to invest time and effort in program planning, while late funding even with the carry-over provision for the past two fiscal years does not allow sufficient time for program planning and development. Too, it should be noted that certain portions of the amendment require the option of participation from the nonpublic school population. An additional issue that of "shared time" has yet to be resolved in Wyoming. The lack of flexibility to program costs to the number of disadvantaged and handicapped students in ongoing regular programs of occupational education has also caused a great deal of caution to be exhibited from the local applicants in view of the inability to effectively account for costs in relation to the number of students involved in programs. The categorization of funds throughout the State specifically set aside for handicapped and disadvantaged has also limited the degree of flexibility and rapidity for program implementation and development. The above limitations have occurred during a time when a record number of school operating levies and bond issues have beeen rejected by Wyoming voters. As a result, the fiscal climate for the increased development of occupational education programs has been less than favorable. Despite this situation, the commitment of State and local monies have accounted for approximately 95 percent of the money spent for occupational education. The total number of people served has shown an appreciable increase over the previous fiscal year.

Obviously, any attempt to assess the impact of the 1968 Amendments cannot ignore the general framework within which the occupational programs have been conducted and implemented in Wyoming during the past two fiscal years.

In view of the continuing effort for effective program development, the school district reorganization process mandated by our Legislature is resulting in significantly fewer school districts with a more adequate financial base in which to operate. Many school districts now face the problems of equalizing the educational opportunities in both city and rural schools.

In many instances, increased services must be provided to insure the complete and uniform instruction guaranteed by the Wyoming Constitution. Reports received from all Wyoming school districts indicate that 5,363 students graduated in 1970, 921 students plan to attend the University of Wyoming, 793 plan to attend other four-year colleges. Another 1,261 indicated they plan to enroll in one of Wyoming's community colleges. The availability of this information causes one to inquire regarding the success of those pursuing advanced education not only educational success but that success necessary to meet the needs and commitments of our changing society. More important than this, however, is what is happening to the 2,388 students who are unable to have chosen not to pursue advanced education upon completing high school? Are the schools in Wyoming meeting the needs of this 45 percent of the student population?

The feeling among many educators is that these are the students our present curricular programs are missing. Our public schools must increase the effort expended in preparing the student who will seek employment upon graduation with a skill that has dignity and is saleable in our society. Here again, we need increased information regarding the results of our present occupational programs. There is impetus here for stronger consideration for the overall appropriations in the area of research for occupational education.

As new occupational emphasis comes to forefront in our society, the public schools must be prepared to change circular programs and to change them rapidly or to face results of maintaining obsolete programs. There is tremendous implications here for the effect of leadership in the area of the career development education concept.

During the 1970 school year, 1,301 students in Grades 7–12 dropped out of school in our State. This is a projected dropout rate of 18.6 percent of the students attending public schools between Grades 7–12. Nowhere are the shortcomings of public school education to meet the needs of students more evident than with the school dropouts. Every effort is being made to identify potential dropouts and to provide programs that will retain these students and provide them with the skills, abilities, and confidence necessary to join society in a meaningful capacity. Costs in this area are insignificant compared to the costs of rehabilitative (remedial, "bandaid") programs that become necessary later.

Wyoming citizens have always supported quality education programs. Recently, however, the bite of inflation has caused educational costs to increase more rapidly and these increases have been borne for the most part by the local property tax. Wyoming citizens are increasingly reluctant to look further to the property tax for increased revenues as it is evidenced by the number of school bond and special tax elections this fall.

Perhaps one of the more significant contributions of VEA '68 has been the initial impetus provided for the development of comprehensive education which calls for program accountability; emphasis upon the child and not the subject; emphasis upon the world of work; emphasis upon such societal needs as drug education and environmental ecological education; use of individualized learning packages, "learning by doing" philosophy, and methods using the total community as a classroom, the elimination of a two-track system of college and noncollege education, and the eventual blending of basic education and career education. As a part of this, the program begins with the elementary schools, where a student must learn the basic rudiments of communication to which reading is a major part, attitudes toward citizenship development, basic computational skills, and attitudes about the world of work in the environment in which we live. The junior high school level basic education is continued, supplemented by a career orientation or informational program which provides students with information about jobs and work that would be valuable to them at a future date in planning for achieving success. In later junior high school years, a career exploration program provides students with hands-on types of experiences and introduction to the various clusters of job families. In later senior high school and community college years, career preparation program in the following cluster areas will give all children some skill development and understanding of work: Construction Occupations; Metal Processing Occupations; Graphic Communication Occupations; Distributive Occupations; Electricity-Electronics Occupations; Office Occupations;

Hospitality Occupations; Transportation, Service and Repair Occupations; Agriculture Production and Related Occupations; Health Occupations; Family and Community Service Occupations.

My State has supported the development of a cooperative occupational education program using cooperative methodolgy for the clusters listed above. The schools, business and industry work together to educate students for particular fields. By this method, students attend classes part of the day under the guidance of a qualified teacher-coordinator and receive classroom instruction related to the various aspects of their chosen occupation. During the other part of the day they receive actual on-the-job preparation under actual working conditions with the added benefit of being paid a minimum wage for their efforts. This method has been found to be effective for all occupational clusters. As programs develop, basic education takes on a form of an individualized learning laboratory instead of a classroom where all students do the same thing for an identically specified period of time. This becomes realistic and relevant to our State and to the world in which we live. Needless to say, VEA '68 under Part G has contributed immensely in this particular area. All seven of our community colleges at the present time now offer post-secondary occupational education utilizing the cooperative occupational education methodology. There is little doubt in my mind that comprehensive education which has as its core occupational education must begin in early childhood and continue throughout life. Productive citizens responsible for good government, respective to their fellow man develop to their maximum capacity and prepare for their chosen occupation are the goals of our educational system.

Program Developments and Accomplishments

During the past two fiscal years a continued emphasis on the implementation of occupational education programs in Wyoming's educational institutions has taken place. An analysis of the efforts during the two previous years reveals a continued expansion, extension and improvement of occupational programs at all levels throughout the State.

Occupational experiences at the secondary level were accelerated as well as those experiences at the post-secondary level while increased emphasis was placed on the development of programs to serve post-secondary, adult, disadvantaged and handicapped persons.

Thirty-three public school districts, seven community colleges and two State institutions as well as the University of Wyoming participated in the Federal funds received for the State of Wyoming during fiscal year 1970. During 1971 some forty public school districts, the seven community colleges, and two State institutions and the University of Wyoming received additional federal assistance.

Occupational education program assistance under Part B for regular ongoing occupational programs was made to needy districts for their secondary and post-secondary programs. The changes of reimbursement to local school districts as a result of VEA '68 has, I believe, contributed toward the overall equality of providing federal assistance to those districts that are interested. The formula approach specified in our State Plan, Part I, Section 3.27, specifies what I think is perhaps a very objective method in allocating Part B federal funds under VEA '68 to ongoing programs. Perhaps one of the greater areas where re-assessment might well be undertaken under VEA '68 is in the Part B area for ancillary funds. The State Department of Education, specifically the Occupational Education Division, receives a majority of its operating capital from Part B ancillary funds. Our State Legislature has seen fit to contribute almost five million dollars of State assistance to local program development, however, the amount of funds directly apportioned for the operation for the Division of Occupational Education has been limited over the years. Therefore, these Federal funds from the various Federal legislation supporting occupational education has greatly assisted in the operation of the Division of Occupational Education in providing staff to carry out implementation of programming in the local schools. Significant aspect of this legislation is that because of the very limited amount of funds from the P.L. 90–576 compared to State and local efforts, many of our public schools did not see fit to make application for these federal dollars. In effect, this allowed specific stimulation in those schools interested in greater expansion of ongoing programs. The State of Wyoming contributed approximately five million dollars of State entitlement toward program development for occupational education during fiscal year 1970 and an equal amount during fiscal year 1971. Total costs of programs in the State of Wyoming were borne out in the following percentages: approxmately 58% of the total program cost was borne by the local district itself; the State of Wyoming contributed approximately 47% toward the total cost of program development; the federal share amounted to approximately 3%. Of significant consequence, however, as a result of VEA '68 and the funds made available under it, is the fact that a revitalized emphasis not only from the Governor but from the State Department of Education emphasizing occupational education attitude development by incorporating a system's approach to education beginning in kindergarten and continuing through if necessary the four-year university program is being proposed. Program articulation is probably one of the primary characteristics of the new frame of program development being brought to the forefront in the State of Wyoming. The transition from school to work is a characteristic from the present program development characterized by the special emphasis being based on a placement coordinator both in secondary and post-secondary programs across the State. Cooperative occupational education methodology utilizing the cluster approach provides employer involvement, allows easy job entry into the labor market.

It is perhaps insignificant in the total scheme of things particularly when you look at the national scope to reiterate the impact of the amount of federal money on the small numbers of programs and students within our sparsely populated State. Therefore, I see it is unnecessary to go through and name specific programs and enrollments as it might apply to Wyoming. I am under the impression that suffice to say that the purpose and intent of VEA '68 has been carried out and implemented. Some changes have appeared. We are working toward additional changes and further program development. It should be pointed out, however, that the Federal funds under VEA '68 have provided a great deal of stimulus toward effective program change. This has been noted in the assistance provided to State institutions with program development, workshops held for teachers, assistance for teacher education at the University of Wyoming, assistance for specific programs dealing with handicapped and disadvantaged as well as maintaining the regular ongoing programs.

New Directions

As a result of the Part D funding, we in Wyoming have submitted and had approved for funding and now in the operational stages the development of a Comprehensive Occupational Education Program Design K–14 begins in kindergarten or pre-school and continues throughout life as a basic concept.

Wyoming's approach to comprehensive occupational education is based upon this model which provides attitudes, skills, understandings, basic tools, and competencies as a child progresses through the various levels or grades of education. The following is a brief description of the various components of the model:

A. *Kindergarten—Grade 6.* Emphasis is placed upon development of attitudes toward the world of work without changing existing curriculum. Projects to develop a respect for all work and a motivation for productive citizenship in the world of work.

B. *Grades 7 & 8.* The career orientation program for all youth to provide them with an understanding about broad areas of our economy such as manufacturing, construction, service, marketing, agriculture, business and professions. This program will provide information in class by use of field trips and resource materials for individuals on: job information on various occupations such as the type of work performed; conditions of work requirements such as skills, licensing, education and health, job applications and interviews, future employment outlook in state and out of state, earnings, and job entry levels, job interest aptitude, evaluation, community resources, appreciation for the work of others, work attributes and personal grooming.

C. *Grades 9 & 10.* A broad career exploration program will utilize classes in industry, business, marketing, agriculture and so forth. Industrial arts exploration will be expanded.

Students are provided with the opportunity to explore various occupational clusters. They can receive consumer education, explore with plastics, wood, metals, power mechanics, office machines and so forth. This is done prior to the career preparation in a particular cluster.

D. *Grades 11 & 12.* Development of a career preparation broad skill serving a wide range of interests and abilities in the employment opportunities and occupational programs found in the eleven clusters mentioned above.

It is not always possible to build in elaborate and expensive occupational facilities, therefore, we encourage the development of cooperative education programs utilizing the community classroom philosophy.

E. *Methodology.* An evaluation in program planning methodology is suggested in the evaluation system as designed to permit articulation with other program planning systems such as planning, programming, budgeting, evaluation systems, and manpower.

At the present time, an evaluation system utilizing Part C funds is being conceptualized whereby the State Department of Education in cooperation with the local districts will be able to assess continuously the effect of program efforts. The system will provide management data which will enable the State occupational education agency more effectively to plan, monitor, and redirect the program efforts in providing quality occupational education. The system is sufficiently flexible to permit our State to meet special local and State management information needs by modifying the system components. The evaluative data generated by the system also are useful for meeting and reporting the requirements of such policy making bodies and agencies as State boards, advisory councils, local school boards, and the U.S. Office of Education. In the past two years, no programs were terminated at the local level. New programs included the seven cooperative occupational education post-secondary programs in our community colleges, seven new secondary programs of cooperative occupational education, one of which is a special education program. The University of Wyoming is establishing a teacher education program in cooperative occupational education methodology for new teachers and inservice education components. Federal funds have assisted the State under the State Plan for the past two years. However, we are most hopeful of the day when broader guidelines become available which permit the State to identify its needs and devise a local formula for distribution of funds.

In rural schools in our State do not always meet national criteria for disadvantaged. We wish to provide occupational services to children and adults even though they may be isolated. It seems obvious that the characteristic of geographic isolation should be an eligible definition by which disadvantaged individuals can be identified.

The State is making a concerted effort to meet the major priorities of the 1968 Act within the limitations mentioned above. Timing of the federal monies is a crucial issue, since schools are usually in session before we receive Federal allotments. The extension of the Tydings-Ryder Amendment allowing an additional year has made the funding task more realistic. The past two summers, workshops for some 200 occupational teachers have been held. The theme for one workshop was "Expanding Occupational Education in Wyoming to Include the Disadvantaged." The second workshop is "Developing Quality Standards for Occupational Education in the 1970's." The purpose of these workshops held was to alert educators to the national need in new programming directions which we have embarked upon.

The State Department of Education, the State Board of Education, State Advisory Council on Occupational Education and the State Manpower Coordinating Council are all dedicated to the K–14 continuing education philosophy of the comprehensive occupational education program. The Advisory Council in conjunction with the State Department of Education, Division of Occupational Education, has held some fifteen public hearings along with the utilization of State staff to begin the change of the image of occupational education as necessary for all children, not somebody elses. During the past two years, the Wyoming Legislature has passed the Cooperative Services Act whereby school districts and community college districts are allowed now to cooperate and provide educational services to larger areas. It is slow if not almost impossible to be brought into the educational mainstream. It is also interesting to note that the research coordinating units and the research efforts established by Federal legislation as early as 1963 and 1966 have provided a great deal of impetus toward this involvement, yet funds in this area have decreased.

VEA '68 As It Affect Regular Ongoing Programs and Implementation

The rate of reimbursement of State and federal funds has been greatly increased. For the first time, attention has been given to developing occupational programs in State institutions. It is believed that this additional resource and attention directed toward programs and services for the disadvantaged and handicapped will result in an increased level of program activity for the next few years. The set-aside categories under handicapped and disadvantaged of VEA '68 certainly have provided a great deal of stimulus for our State institution at the Wyoming Industrial Institute in Worland, Wyoming and the Wyoming Girl's School in Sheridan, Wyoming.

The majority of program objectives cited in our State plans over the past two years which have specified the securing of a given number of enrollees in programs were generally met, but it can also be cited that the State Advisory Council for Occupational Education in Wyoming found that "late funding placed a nearly insurmountable obstacle in the path of helping the realization of State objectives." Local school administrators may have been hesitant to plan additional programs due to the uncertainties of Federal funding. Thus, it would appear that the priorities set by the admendments adopted in the State Plan were not completely translated into programs and services for all categories of people to be served for reasons which have been previously cited. Wyoming's commitment to occupational education remains strong as the combination of State and local funds total in excess of three and one-half million dollars for 1970 and an equal amount for 1971 when compared with the total Federal share of just below the one million dollar figure for each of the two years. The match effort in those programs which specifically participated in the federal funds does not represent the total State and local contribution for occupational education if we include those programs that did not apply for Federal funds. The level of expenditures in secondary programs indicates substantial support for occupational education programs in the widely comprehensive high school setting together with seven post-secondary schools which are now functioning in Wyoming.

During the past two fiscal years, the method of reimbursement for Part B occupational education instruction has been altered to include a minimum grant based on the State foundation formula and a non-uniform reimbursement formula. Foundation grants representing a minimum reimbursement were issued to public secondary schools conducting occupational education programs to serve groups of people. Additional support for each school conducting occupational education programs was established or accomplished by applying the non-uniform reimbursement formula to the 1970–71 funds. The formula requires a composite score for each school based on a rating of the following factors: (1) manpower needs and opportunities; (2) occupational education needs; (3) relative ability to pay; and (4) excess costs.

A total statewise appropriation for occupational education for postsecondary level figured on the occupational education for pupil distribution based on FTE was in excess of one hundred eighty thousand dollars for fiscal year 1970. This past Legislature in Wyoming appropriated 6.8 million dollars to support the seven community colleges in our State during the next biennium.

An integral part of the occupational education program in Wyoming has been the continued emphasis on teacher education. As the emphasis of occupational education over the State has increased the University of Wyoming with its involvement in programs of teacher education has increased. In fiscal 1970–71 the University of Wyoming offered programs of preservice and inservice nature to better prepare Wyoming's occupational education teachers. However, insufficient funding under the ancillary portion of Part B, particularly for that of teacher education which in the long run relates to the total State allocation does not provide for a great deal of program expansion of an immediate nature. If additional funds were available for teacher education the following list of common shortcomings of occupational teacher education programs could perhaps be taken care of: (1) internships for administrators; (2) preparation for teaching or administering intercity programs with schools; (3) techniques of working with disadvantaged persons; (4) special education techniques for regular occupational education teachers; (5) teacher education programs designed to meet competency requirements instead of credit requirements; (6) techniques of flexible scheduling; (7) practice in teaching or administering cluster type programs; (8) understanding of experiences in team teaching; (9) teacher and employee negotiation skills; (10) legal aspects of school contracts and administration; (11) techniques of dealing with sit-ins, demonstration strikes, and so forth; (12) techniques for meaningful involvement of students and teachers in policy determination; (13) food service management and contracts; (14) transportation management and contracts; (15) techniques and skills of money management and budgetary practices; (16) short- and long-range planning techniques; (17) management information systems; (18) school facilities, design, maintenance and contracts; (19) Federal and State reporting requirements; (20) money grantsmanship; (21) improving staffing patterns through career ladders and differentiated roles for supporting personnel; (22) staff improvement techniques; (23) establishing multiplier effects; (24) techniques of resource utilization; (25) adult education; (26) coordination of University and State education agency efforts; (27) need for integrated occupational teacher education departments and programs.

Special Programs As Related to Part III of the Annual Program Plan Under VEA '68 Research Coordinating Unit

The increased demand for research and resource information somewhat dictated the major emphasis of the Research Coordinating Unit for this past two fiscal years. Much of the staff's time was spent in processing the requests and acquainting individuals in groups in the field of services which are available. The concept of the RCU is still new in Wyoming. The direction of the RCU is perhaps even newer now that limited funding appears likely.

The RCU did not have access to sufficient monies for the funding of many educational or pilot projects. However, research assistants and staff consultants were provided to the University of Wyoming and other community colleges in the State. Several projects funded with money from the original RCU grant which expired August 31, 1969, were closed. Specifically, the Research Coordinating Unit continued its functions during the period and provided the following services: continuation of occupational research, consultation to secondary and post-secondary schools, participation on Department and interagency councils, support of graduate research at the University of Wyoming, served on school evaluation teams, and conducted final original grant operations for the RCU activities. To adequately serve our State, the fifteen thousand dollars during fiscal year 1970 and the thirty thousand dollars during fiscal year 1971 of Federal money received was not adequate.

Under Part D of the Act, Exemplary Programs

The State's objectives for exemplary programs sought to familiarize elementary and secondary students with the broad range of occupations for which skill is required along with the requisites for careers and such occupations. An additional objective was to implement projects designed to integrate basic education in skill development for segments of the population previously being neglected. There were four exemplary projects approved to meet these objectives. However, due to late funding these projects did not become operational until after the close of the fiscal year in which they were funded so that the program accomplishments are undetermined at this time. A summary of the four approved projects follows:

A. The demonstration and development of a Cooperative Services Board for Occupational Education involving a community college district and three public school districts with the intent and purposes of expanding opportunities for students in rural geographic areas. This project was to provide for an articulated program of occupational education in varying cluster groups between four schools, grades 7–14. Specific program emphasis in the area of outdoor education, industrial maintenance, office occupations clusters and construction occupations would provide the core around which a total occupational education sequence of integrated career programming will be focused. Fifty thousand dollars of State, Part D share money was allocated for the first year of this program.

B. A second project was funded at Casper, Natrona County High School District, entitled Planetarium Technology in the secondary school program. Approximately six thousand dollars was approved for this program which would provide for secondary job entry level occupational programming for students interested in repair and maintenance effort of planetariums.

C. A project funded at Huntley, Wyoming, was to expand the rural educational opportunities for students of rural geographic areas in the State of Wyoming. Primary emphasis of this project was to provide for the total program beginning in kindergarten and running through the twelfth year of school and based on the cluster concept utilizing a cosmetology program approved by the State Board of Cosmetology to begin the initial stimulation of a secondary occupational skill development component.

D. Many portions of the State's share of the Part D were allocated in conjunction with the Part D Commissioner's share of funds for the project which was approved to demonstrate a Comprehensive Occupational Education Model System of Education in the State of Wyoming K–14. This program has been allocated from State level to be demonstrated at Riverton for public schools and Central Wyoming College to cooperate with each other to demonstrate an interdisciplinary and integrated articulated approach to occupational education emphasizing elementary attitude development, junior high school career orientation, career exploration, senior high school career skill development and post-secondary career job entry program development culminating with job placement activity.

Wyoming did not receive any Federal funds for the construction of residential vocational education schools. As a result, no construction was initiated.

Under Part F for Consumer and Homemaking Education, Wyoming utilized its share of federal funds to expand and improve the opportunity in quality for programming for residents of the State. Consumer and Homemaking Education programs have been expanded as well as strengthened to serve an increased number of secondary and post-secondary adult persons together with persons in depressed areas and those with special handicaps. Much of the State's allocation was utilized on an individual school basis across the State to support the inservice educational activities of a professional development nature so as to indirectly focus on larger numbers of students in order to gain the greatest economic benefit from funds expended.

Under Part G of the Act for Cooperative Occupational Education, Wyoming had basically fourteen cooperative programs until the passage of VEA '68, all of these in the area of distributive occupations cluster. Since the advent of the state plan for fiscal year 1970, cooperative education programs have been developed in other clusters. Our greatest need is the lack of teacher coordinators certificated to serve local school systems. Under the State Plan, a preservice education program was funded at the University of Wyoming to prepare teacher coordinators and alert all educators to the philosophy of cooperative programming.

A fall inservice workshop was held by the State Department of Education for the teacher coordinators with fifty participants present. During the summer of 1971 two follow-up workshops, one of a beginning nature and one of an intermediate nature, will further enhance the inservice aspects of teacher coordinators in the cooperative occupational education methodology.

Since the community colleges were faced with limited funds for programming and had no cooperative post-secondary programs as a result of the fiscal years 1970 and 1971 appropriations, they have received first priority on cooperative funds. Diversified Cooperative Occupational Education programs have been funded at all seven community colleges to date.

One cooperative program for handicapped youth has been funded at the Powell schools and will serve as a model for the State. An experimental cooperative first phase articulation program has been funded at Cody in the Cody public school system. This is an experimental effort designed to provide some pre-coop experiences in the area of observation and natural on-the-job exposure.

Under Part H, Work Study, the objectives in the work study program were probably not fully met due to the delayed funding and the limited amount of funds provided for this purpose.

Recommendations and Suggestions

I am concerned about the budget recommendation and the potentiality of the appropriation for FY '72. Obviously, there is no need for less money in FY '72. Only an increased amount can assist in the State's obtaining and accomplishing the objectives as set forth under VEA '68. I am more or less tired of hearing the statement that now we have an authorization that will allow us to accomplish the world and give two examples. And then on the other hand, we have an appropriation bill that provides a decreased amount over a period of years, an insufficient amount to even begin the task that is outlined according to VEA '68. I think it is high time that we begin to appropriate what Congress had intended in its authorization so that we can accomplish what Congress has intended. Needless to say, any budget reductions for FY '72 would repeal the new directions for occupational education as mandated by Congress in the 1968 Amendments. I believe that the programs authorized by the 1968 Amendments have paved or have begun to pave the way for change throughout our educational system. However, being realistic, it is going to take additional stimulation money to accomplish the change which has been initiated under VEA '68. Even though the amount of funding has been limited thus far, it has resulted in many changes and improvements at all levels of education. A direction has more or less been set. Therefore, I support the appropriation of full funding for the Vocational Amendments of 1968. This in itself precipitates proper planning and administration that educational funds be appropriated and allocated before the school year begins. Also, since the legislation beginning with the Vocational Education Act of 1963 was expressly tailored to support the occupational education research as an integral part of basic State grants to improve and broaden occupational programs, I support increased and full funding for occupational education research under VEA '68.

The concept of the research coordinating units in the various states constitutes a national network integrating the research activities of the states with the national centers and the U.S. Office of Education. They should be commended for their initiation and involvement into this state and national effort. Likewise, Congress should provide support in terms of full funding to allow further penetration into this neglected area.

Congress has increasingly reflected the knowledge that Federal support of education is a wise investment. The 1968 Amendments demonstrates Congress' awareness that investing in occupational education could yield a particularly valuable return to the nation. Public Law

90–576 represents a significant step in a new direction for occupational education utilizing federal support.

The passage, however, of the authorization bill is no more than a formality. In order to fulfill the promises extended by the 1968 Amendments, the Congress must take the second step and approve full appropriation for this Act. Failure to fund Public Law 90–576 adequately will in fact be a step backward, leaving occupational education in a worse financial position than it was before the passage of the Amendments.

This substantially increased authorization and appropriation if passed is necessary to begin funding of the new directions opened up by the 1968 Amendments as well as to continue funding of presently operating occupational education programs.

Many of us in occupational education have been frustrated in the past by the meager funds which we have received from the Federal Government and by the low status which this funding level indicated. It appears only obvious to me that if we receive the kind of funding that manpower programs and the other kinds of "bandaid" programs receive, that occupational education could naturally fill the gap between education and employment, rather than to not fully provide for all individuals interacting with the system of occupational education so that ultimately these "bandaid" programs must become available to bring them back into the fold so to speak. There is little question in my mind as I said in the meeting at Fort Collins, Colorado, Colorado State University, that Congressman Pucinski's legal counsel raised our hopes with the passage of the authorization bill for Public Law 90–576. He, in effect, indicated that we had the ball and now if we dropped it we would be in a bad way. However, he failed to indicate that the appropriations that came later were not sufficient to actually do the job intended as a result of the passage of VEA 1968.

Our educational system claims to value the individual but persists in artificially limiting his access to college and to an expanded occupational program.

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